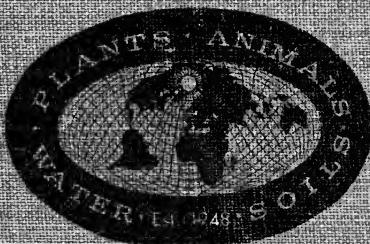


# A CRITICAL INDEX OF FILMS AND FILMSTRIPS IN CONSERVATION



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1965

THE CONSERVATION FOUNDATION

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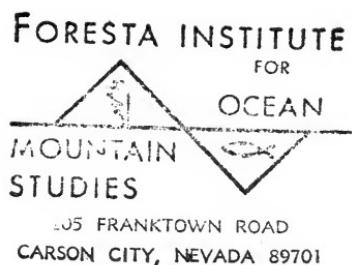
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Do Not Take From This Room



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CARSON CITY, NEVADA 89701

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A CRITICAL INDEX OF  
FILMS AND FILMSTRIPS  
IN CONSERVATION

dealing with

Renewable Resources, Non-Renewable Resources,  
Resources and People, and Ecology

Ref.

HC 103.7

C63

1965

FORESTA INSTITUTE'



205 FRANKTOWN ROAD  
CARSON CITY, NEVADA 89701

Compiled and Edited by  
THE AUDIO-VISUAL CENTER OF  
THE CONSERVATION FOUNDATION  
30 East 40th Street  
New York

1965

FOR REFERENCE

Do Not Take From This Room

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## **CONTENTS**

<b>Foreword</b> .....	<b>4</b>
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### **Part I**

#### **FILMS**

<b>Renewable Resources</b> .....	<b>5</b>
<b>Non-Renewable Resources</b> .....	<b>18</b>
<b>Resources and People</b> .....	<b>25</b>
<b>Ecology</b> .....	<b>33</b>
<b>Films to Fit Specific Problems</b> .....	<b>39</b>
<b>Pesticides</b> .....	<b>39</b>
<b>Pollution</b> .....	<b>42</b>
<b>Recreation</b> .....	<b>44</b>
<b>Teaching Conservation</b> .....	<b>46</b>
<b>Community Action</b> .....	<b>48</b>

### **Part II**

#### **FILMS AND FILMSTRIPS SELECTED BY THREE TEACHERS**

<b>Selection of Phyllis Busch</b> .....	<b>51</b>
<b>Selection of Edward Victor</b> .....	<b>55</b>
<b>Selection of Irene Cypher</b> .....	<b>58</b>

### **Part III**

#### **NAMES AND ADDRESSES OF DISTRIBUTORS**

<b>Film Distributors</b> .....	<b>70</b>
<b>Filmstrip Distributors</b> .....	<b>73</b>
<b>U.S.D.A. Area Film Rental Libraries</b> .....	<b>74</b>
<b>INDEX</b> .....	<b>77</b>

## **FOREWORD**

Since 1948 we have screened and evaluated more than 6,000 films in the field of conservation for film festivals, magazines, and our own personal records. These films were designed as educational aids at the elementary, junior high, and high school levels. The screening of these productions has made it possible for us to select our own critical index of recommended films.

It is not a very long list or an exclusive one. It is simply our list. As such we hope it will be of value to teachers as well as to organizations interested in natural and human resources.

**Audio-Visual Center  
The Conservation Foundation**

## PART I

### FILMS

#### RENEWABLE RESOURCES

##### A TREE IS BORN

Color—Sound  
29 minutes

Du Art Film Laboratories, Inc.  
Rental—Sale

At some length but with meticulous and above average photography, this film provides an excellent introduction to the study of hybrid pines through controlled pollination. The use of time-lapse photography graphically illustrates both the germination and growth of these hybrids and most of the story is devoted to their proper development, testing and planting. However, of interest to ecologists is the fact that the story constantly emphasizes the relationship in detailed sequence of tree succession and the need of proper environment. A definitive though somewhat long contribution which should intensify audience appreciation of the magnitude of tree planting and application of genetic principles. Produced by the U.S. Department of Agriculture.

AUDIENCE: Junior high; senior high; adult

##### A WAY OF LIFE

Color—Sound  
27 minutes

Missouri Conservation Commission  
Rental

Predators have always been among the least sympathetic and most misunderstood characters in the conservation field. This film stresses their value and importance in the ecological pattern. Although the story is restricted to the Missouri countryside, the findings are of significant importance to the United States as a whole. The film presents an eloquent case for the so-called balance of nature and the part the predators such as the coyote, fox and other animals play in it.

Mankind is also acknowledged as a predator, but this story proves him to be far less effective than the natural predators. Of value as a needed dimension to the ecological story which conservation must

illuminate, this production rates very high technically because of its photography and editing. It puts the case logically and serves as an introduction to a new point of view—the value of predators.

AUDIENCE: Senior high; college; adult

## ADELIE PENGUINS OF THE ANTARCTIC

Color and Black &  
White; Sound  
20 minutes

McGraw-Hill Book Company  
Rental—Sale

A carefully documented account of the birth, growth, and hazards in the lives of the Adelie and Chinstrap Penguins. Discusses the hatching of eggs under highly adverse conditions and notes the devotion of the birds to their young. Migratory habits of the birds are explained and the identification of the young by the parents is proved through extended study over a period of time.

The meticulous research and production plus the commentary by Robert Cushman Murphy of the American Museum of Natural History contribute to make this a superior film. The interest created is broader than interest in biology alone because of the warm, affectionate, and effective presentation which arouses sympathetic feeling for the birds and their determination to survive.

AUDIENCE: Junior high; senior high; college; adult

## BEYOND TOMORROW

Color—Sound  
25 minutes

U. S. Department of Agriculture  
Inquire

The primary purpose here is to encourage farmers to subscribe to soil conservation plans and practices. Its scope, however, makes it of interest to conservationists and students inasmuch as it dramatically illustrates urban transformation with emphasis on the fact that the land is foundation and heart of economic progress and strength. Sequences show conservation technicians in the field with the farmer. Film details the laying out of contour lines, shaping, seeding, and harvesting of diversion terraces to offset flood conditions, soil testing with the aid of the agriculture department, state university, and county agents. It reveals cost-sharing plans for such terracing, as well as tile drainage, tree planting and the construction of farm ponds for fire protection. One sequence emphasizes the

importance of nesting sanctuaries for wildlife. The film sells conservation as a common sense measure and ends with a field day sponsored by a soil conservation district with demonstrations of many new conservation techniques.

AUDIENCE: Senior high; college; adult

## BLACK WIDOW SPIDER

Color—Sound  
11 minutes

Ken Middleham Productions  
Sale

Introducing one of the more menacing members of the insect community, the Black Widow spider, this film makes an eloquent appeal for her place in the ecological society. With extremely attractive and meticulous photography combining micro-film with startling closeups, the camera illuminates scenes of the Widow mating, construction of the egg sac, laying and hatching of eggs, and the development of the spiderlings. The story expands to include certain natural enemies of the spider such as the praying mantis and the alligator lizard but most dramatically it reveals as the real enemy . . . a tiny fly. The film in a relatively short span of time dramatically illustrates the importance of biological control in nature. Excellent introduction for young people to predation.

AUDIENCE: Junior high; senior high; adult

## THE CHANGING FOREST

Color—Sound  
20 minutes

McGraw-Hill Book Company  
Rental—Sale

This ecological story chooses as its setting a Canadian forest, and begins with an introduction to the tree cycle. It highlights the active competition which exists in such an environment among the wildlife, and the reason for such competition, namely to effect an orderly balance in the community. The tracing of tree progression and wildlife change makes us aware of the analogy between forest and human communities, the former being subject to certain changes brought about by actions of man such as logging, cultivating, pasturing, and the development of living facilities. The story notes also the part played by seasonal changes in their effect upon the natives of the forest environment.

AUDIENCE: Junior high; senior high; college; adult

## **EXPLORING THE FARMLAND**

Color—Sound  
13 minutes

Roy Wilcox Productions, Inc.  
Rental—Sale

A modest film which serves as an introduction to the meaning of conservation. The discoveries of three youngsters who explore a farm and the neighboring woodland help make them aware of the animal and plant environment. Their activities cover observations of such predators as foxes, birds, raccoons, and woodchucks. Closer to home they watch cows at milking time, observe cats eliminating rats, and the harmful action of mice to crops. By emphasizing the interdependence of living things, this film helps to promote a discussion on the child's level and through discussion to acquaint children with the significance of the animal and plant life of a rural environment. Especially effective with the teacher's guide.

**AUDIENCE:** Elementary; junior high

## **FISH OUT OF WATER**

Color—Sound  
11 minutes

Moody Institute of Science  
Rental—Sale

The grunion and its use of specific tides for spawning is used to develop a story which has both scientific and philosophic connotations.

Night shots of a typical grunion run on the California coast give striking examples of the grunion's spectacular spawning behavior. Closeups show the female nesting in sand and her desperate struggle for survival after the eggs are fertilized. Eggs are then removed from the beach and taken to the laboratory where the embryonic development is studied with microphotography and time lapse sequences.

A film which tends to emphasize the moral and spiritual values which may be found in studying the world of nature.

**AUDIENCE:** Elementary; junior high; senior high; college; adult

## **IN THE BEGINNING**

Color—Sound  
28 minutes

Modern Talking Picture Service  
Free Loan

This film depicts the five great eras of geologic earth building as recorded in the walls of the Grand Canyon. It goes on to point

out the great spans of geological time necessary for major changes in the earth's form and structure. The Grand Canyon is used as an example of the formation of a great part of the earth.

Of particular interest to ecologists, it offers a valuable introduction to the study of eras and epochs by giving many examples of erosive action, particularly water, wind and frost. An elaborate production in terms of music, narration and scope of story.

AUDIENCE: Junior high; senior high; college; adult

## THE LIVING FOREST SERIES

Color—Sound

Encyclopaedia Britannica Films

Three parts;

Rental—Sale

33 minutes complete

### PART I—THE FOREST GROWS

Different types of trees and forests, together with the climatic and geographical variations which cause these differences, are described. The film next defines these trees as citizens of the forest community and demonstrates the duties they perform in this role. Photosynthesis and growth are shown in remarkable time-lapse photography. The changes in growing conditions from valley floor to mountain top, and the resulting difference in forests and ground cover, are then covered. The film goes on to explain the growth and development of a typical New England forest, including the roles of weather, animals, and the trees themselves. Finally it shows how an overmature forest can be brought back to life by the understanding care of man.

### PART II—THE FOREST PRODUCES

The forest's three gifts to mankind are described in this film. The lumber industry and its many products are sketched first. Water is shown as the most important gift of the forest, and the film explains how trees and forests help mountains store water and regulate its flow, and how the water thus saved carries life to thousands of acres of arid land. The third gift of the forests, provisions of places of beauty and relaxation, concludes the film, with scenes of our national parks and forests, and the geological history and wildlife observable within. The reminder is made that man can continue to receive these gifts as long as he manages his forests wisely.

## PART III—FOREST CONSERVATION

The need for careful conservation of our forest resources is brought home in this concluding film of the series. Careful lumbering is outlined, with reminder of the damage caused by poor timber practices. Mismanaged forest areas are shown, land which cannot hold water and whose soil is washed away by rain, causing floods, erosion, and filling of lakes and reservoirs with the eroded silt. Scientific forestry methods—sectional lumbering, reforestation, spacing and thinning are illustrated. Special attention is paid to the problems and difficulties of the small forest owner, and the film suggests state and federal aid with the tending, harvesting and marketing of his crop and the cheaper purchase of stock. The responsibility of every forest owner as a trustee, and the importance of his trust, are emphasized in closing.

AUDIENCE: Junior high; senior high; college; adult

## THE LIVING WATER SERIES

Color—Sound

Encyclopaedia Britannica Films

Two parts;

Rental—Sale

33 minutes complete

## PART I—NATURE'S PLAN

The first of two films in the Living Water Series portrays the principles and importance of the natural water cycle—the continuous moving of water from ocean to air, from air to earth, and from earth back again to the sea. This section covers the evaporation, the forming of water vapor in the clouds, and the release of this moisture as rain and snow. It is emphasized that the force which moves the water lies in the heat delivered by the sun to the earth, and in the ability of the water to store this heat. Fog belts and thunderheads are explained, and documented, as well as an explanation of watersheds, the natural basins that trap water and divert it into streams or river systems. There is also a sequence on underground water.

## PART II—MAN'S PROBLEM

This sequel film tells the story of the serious problems confronting Americans in the care, protection and use of our precious water supply. Opening scenes highlight the incredible amount of clear water needed in an industrial world. The story of water in Los Angeles is used to document a city water supply. Other sequences illustrate some of the great problems which the building of a dam

creates, such as loss of salmon stock, the difficulty of bringing out timber from forest areas above huge reserves, and the lack of planning of some large dams. The film concludes with a section on water pollution and the effects of floods and droughts on farm lands.

AUDIENCE: Junior high; senior high; college

## THE MEANING OF CONSERVATION

Color or Black & White—Sound  
10 minutes

Coronet Films  
Rental—Sale

Preserving and rebuilding are two of the basic ideas of conservation. This film selects a family—mother, father and young son—as identifying factors in introducing the significance of conservation. Through the boy's walk in the woods we get an abbreviated but cogent history of man's misuse of the land. With the help of his father the boy demonstrates one of the first principles of conservation, which is to prevent a campfire from spreading. The film, although short, manages to touch upon most of the problems that face conservation-minded people today, and, although generalized, it is still an appealing and accurate introduction for young students.

AUDIENCE: Elementary; junior high

## OUT OF THE NORTH

Color—Sound  
19 minutes

Modern Talking Picture Service  
Free Loan

This story of bird migration begins with the spring brooding season. Summer brings the education of the fledglings. In autumn the training maneuvers begin, and the migration south starts. Aerial photography details mass formations as they start south. Ground photography picks up details of individual birds. Telephoto lenses used through reeds obtain unusual effects as the birds pursue the flyways.

The hunters wait with patience and fortitude. About 400 feet of exciting hunting montage taken from the ground, superbly photographed.

It is emphasized that the birds pass over this hunt "in abundance" and win their way to the southern areas. The whole cycle is to be renewed again as they start their journey north.

A cycle of life with depth and emotion, with the exception of the artificial introduction of the hunter.

AUDIENCE: Junior high; senior high; college; adult

## **RAINBOW VALLEY**

Color—Sound  
24 minutes

Contemporary Films, Inc.  
Rental—Sale

This film takes one specific conservation problem and documents it thoroughly. The problem concerns the preservation of the rainbow trout and the protection of their native habitat. The motivation for such action is linked to the expanding productivity of a state (Montana) in which the trout has economic significance. Conflict is developed by outside interests who threaten this third largest source of state revenue by timber cutting, water diversion and power development.

Portions of the story are devoted to the life cycle of the trout. Microphotography illustrates the development from the "milking" of the male and female trout by hatchery employees until such time as the young trout are dropped by air into streams. An important sequence shows the duties and significance of the game warden and his apprehension of fishermen whose enthusiasm is exceeded only by their greed.

Well photographed, clearly and appealingly presented, this film makes a good case for true conservation.

AUDIENCE: High school; adult

## **TOMORROW'S TREES**

Color—Sound  
30 minutes

Modern Talking Picture Service  
Free Loan

The lumber industry's responsibility in providing timber for tomorrow, while harvesting trees today, is detailed in this Weyerhaeuser lumber company film. Graphic photography shows trees being cut and hauled away, and then leads into the problems of supplying forest resources for the future. Aerial seeding, careful cutting practices and constant vigilance are noted as some of the vital components of this modern planned industrial forestry. The foresters must be ready to combat many natural hazards, and the film includes sequences on animal competitors, winter snows and gales, and the greatest enemy of all, the forest fire.

The film provides in addition a valuable introduction to new equipment and methods pertaining to modern forestry. A comprehensive and absorbing introduction to today's forests.

AUDIENCE: Junior high; senior high; adult

## **THE TREE**

Color—Sound  
10 minutes

Churchill Films  
Sale

Excellent introduction to ecology for younger students. Establishing identity at once by making the protagonist a small boy and his dog, the story in simple terms dramatizes the tree as a shelter for birds, protecting and enriching the soil, and feeding insects as well as the interaction, interdependence and succession of trees.

The importance of trees in terms of climate is emphasized and generally the production manages to make its subject both dramatic and appealing. Excellent photography and sound track plus a well-selected musical score which does not distract.

AUDIENCE: Elementary

## **WATER**

Color—Sound  
14½ minutes

Contemporary Films, Inc.  
William M. Dennis Film Libraries  
Rental—Sale

Through the use of eloquent animation by Philip Stapp, this film makes three cogent points. First, admitting that there is just as much water today as in the past, it maintains that today's technological demands, pollution and waste, and the rising threat of a rapidly increasing population are bringing the whole world to a water crisis. Second, the story emphasizes that water crosses all barriers, affects all people regardless of race, creed or color. Third, it proposes that an international organization of nations be created to handle the threatening water problem and expresses the hope that, by such control and planning of the supply of water and its uses, an effective and lasting solution may be found.

Prepared for the United Nations by the Center for Mass Communication of Columbia University, the film has been produced with some sophistication, provides ample opportunity for discussion among teachers and students, and succeeds in making its point that water is a global problem calling for global responsibility.

AUDIENCE: High school, college, adult

## **WATER—PATTERN OF LIFE**

Color—Sound  
28½ minutes

Ohio Water Commission  
Apply

Clearly, cleverly, persuasively, this film develops the story of the water problems in Ohio. Beginning with a simple explanation of the water cycle, it introduces and emphasizes the inevitable pressures of modern man's demand upon water reserves. Shrewdly and humorously animated, these demands are dramatized as industry, government and people themselves seek the use of water for their particular interests. It illustrates progress made by the state in planning the use of the water, its storage, its battle against pollution and the constant need of long-range planning for the future. But the film's impact and usefulness reaches far beyond Ohio. It serves as a definitive documentary which should be used by teachers, planning groups and students of a natural resource which knows no boundaries.

AUDIENCE: High school; adult

## **WATERSHED WILDFIRE**

Color—Sound  
21 minutes

U. S. Department of Agriculture  
Free Loan

This film documents the forest fire, started through carelessness, which spread throughout the tree-covered countryside of the Santa Inez watershed in California. Thousands of fire fighters were organized and waged a nine-day battle to control the fire. Control was not the whole story, however, and the film emphasizes the importance of the immediate reseeding by hand and airplane to produce waterholding vegetation. A fine example of information through effective illustration.

AUDIENCE: Junior high; senior high; college; adult

## **WE SHARE THIS LAND**

Color—Sound  
14½ minutes

U. S. Department of Agriculture  
Free Loan

This extremely useful film illustrates the importance of wildlife to the farmer and private land owner. Since 85% of wildlife land

is privately owned and controlled, it is important that they understand the need for strip-cropping, windbreaks, contour farming, farm ponds, proper fencing, tree planting and the like which help attract and support wildlife. Well-photographed sequences of the habits and hazards of the lives of quail, pheasant, rabbits, raccoons, and many other birds and animals are shown. Methods of improving habitats for such animals are particularly well illustrated.

Perhaps the most important contribution of this film is to contradict the prevailing impression that wildlife is mostly associated with sanctuaries and refuges. The implicit thought that wildlife may be considered a crop in itself may seem farfetched to some, but it impinges on the increasing importance of ecology and as such is well worth considering.

AUDIENCE: High school; college; adult

## WEB OF LIFE SERIES

Color—Sound	Encyclopaedia Britannica Films
Two parts;	Rental—Sale
30 minutes complete	

### PART I—THE STRANDS GROW

Treats the ecology of plant life and explains the delicate balance of nature with particular emphasis on the fact that in nature, animal or plant species which are unable to adapt to change disappear. This ruthless competition leads to endless change. Significant sequences of the film study the growth of a climax forest.

### PART II—A STRAND BREAKS

Into the world of nature mankind introduces practices which interfere with its natural balance. Both good and bad practices are shown in forests, grasslands, and grazing lands. The story details proper methods of caring for resources. One section concerns predation and the unfortunate results of careless killing of predators. The film concludes with the warning that the population explosion may lead to pressures which cause more problems.

AUDIENCE: Junior high; senior high; college; adult

## **WILDLIFE AT HOME**

Color—Sound  
14½ minutes

Ohio Department of Natural Resources  
Inquire

Like people wild animals require food, shelter, and good clean water. Some like woodland; others prefer open farmland, a woodlot or a marsh. Fish seek a fast flowing stream, a river, or lake. Animals of minute size usually group together in the search for food and shelter. Larger animals require space.

The story line emphasizes the fact that people can grow and build, provide and plan for themselves. Animals, lacking that element of reasoning power, are consequently highly dependent on the actions of people. Pollution is probably the greatest threat to the animal habitat and this film lists the pollution of water, the dumping of garbage, drainage of marshlands, and thoughtless use of chemical pesticides as the major problems. Photographed by one of the greatest living nature photographers, Karl Maslowski, this film underlines the need for planning and for consideration of the protection of wild animals by human beings whose reason must include common sense as well as compassion.

AUDIENCE: Junior high; senior high; adult

## **WORLD AT YOUR FEET**

Color—Sound  
22 minutes

National Film Board of Canada  
Rental—Sale

This is the story of soil and how it is formed. The film documents various types of soil and the effect upon plant and animal life; the reactions of these kinds of soil to wind and water; and man's ability to improve soil through soil nutrition. Some emphasis is placed on the ecological factor, in that the earth is home for many insects and holds an important place in the balance of plant and animal life.

Time-lapse photography and careful production help make this film an excellent introduction to the importance of the soil. By emphasizing the dependence of human beings on the earth, it fulfills a need in any conservation curriculum.

AUDIENCE: Senior high; college; adult

## THE WORLDS OF DR. VISHNIAC

Color—Sound  
20 minutes

Horizons of Science  
Sale—Inquire for Rental Sources

By emphasizing the human and personal side of microbiologist Dr. Roman Vishniac, this film provides a new angle on the conventional approach to science. By showing and demonstrating Dr. Vishniac's equipment and his methods of preparing samples and slides for his microscopic-photography work, the film imparts intimate knowledge not only of the subject, but of some of the reasons for the motivation of the protagonist. The film consists of an introduction to the small but very complicated organisms known as protozoa. It also shows Blepharisma undergoing conjugation, details of the structure of Paramecium, Bursaria, and Amoeba, moving and eating, and many other organisms magnified from about 500 to 1000 times.

The story concludes with a significant touch in which scientist Vishniac returns his samples very carefully to a local pond. His explanation that he has only borrowed these animals and must return them before he has the right to take more is only part of the novel approach to this scientific film.

AUDIENCE: Junior high; senior high; adult

## YOURS IS THE LAND

Color—Sound  
19 minutes

Encyclopaedia Britannica Films  
Rental—Sale

The story begins with the making of soil from the elements of air, sunlight, rock and water. We learn that nature takes from ten to thirty human generations to produce a single inch of top soil, and, by contrast, a map of the United States indicates the frightening rate which top soil is being lost. After carefully reviewing the growth of sample plants through animated drawings, we learn how plants, insects, bacteria and other animals aid in vitalizing the fertile top soil, making their own great contribution to our inheritance. The entrance of man upon the scene and his taking over of the earth introduces problems, and the remainder of the film brings out important facts about erosion and loss of forest lumber and discusses in order the important topics of man's use of soil, forest, water and wildlife. In conclusion the film points out that man, with his increasing numbers and his multiplying machines, will have to plan carefully to preserve the resources of this earth.

This film replaces the Living Earth Series.

AUDIENCE: Junior high; senior high; college; adult

## NON-RENEWABLE RESOURCES

### A MILE TO EL DORADO

Color—Sound  
28 minutes

Association Films, Inc.  
Free Loan

Beginning with a profile of the modern-ancient city of Caracas, Venezuela, this film emphasizes the fact that in this country Lake Maracaibo contains treasures greater than any conquistador ever dreamed of. The story takes us to the lake itself where new tools and techniques of drilling for oil literally make the mile to El Dorado a "vertical" mile. For the search for oil leads directly down into the lake.

The treasure that has transformed Venezuela into a thriving prosperous country is oil, and the purpose of this film is to highlight the value of the oil discovery to the inhabitants. Included is a carefully detailed sequence of the problems of laying pipeline in drilling for underwater oil.

Running throughout the film is an implication that without this black gold mine the country would have remained undeveloped and unsung. This film, however, must be recommended for its careful production and attention to technical detail plus its emphasis on the sociological angle.

AUDIENCE: Junior high; senior high; college; adult

### AMERICAN FRONTIER

Black & White; Sound  
29 minutes

American Petroleum Institute  
Free Loan—Sale

This documentary faithfully records the events happening in a rural region upon the discovery of oil. Photographed on the spot and using local farmers and townspeople as the cast, the story is told through the eyes of the protagonist, Nils Halversen—wheat farmer and school teacher. The initial exultation and the sober after-reflection provide an interesting sociological angle. One sequence depicting a town meeting is particularly significant in that we find some doubts expressed about the value of the discovery because of its possible ramifications. The film demonstrates that the old pattern of "boom and bust" can be replaced by one of a planned and continuing benefit to the community.

This elaborate production with a special musical score is particularly significant for the introduction of sane practices having to do with the discovery and exploitation of oil.

AUDIENCE: Senior high; college; adult

## **BIG RISK**

Color—Sound  
22 minutes

Modern Talking Picture Service  
Free Loan

The oil industry's search for new reserves of its raw material is dramatized in this production by a mid-Western oil company. A crew representative of several American oil concerns undertakes an unusual "air lift" into a remote section of Guatemalan jungle. The project is risky both financially and physically, and the difficulties of transporting eleven million pounds of equipment and supplies into the jungle are excitingly detailed. It should be noted that emphasis is on the search for the raw material; the result of the venture is not mentioned.

Unusual photography featuring the Guatemalan surroundings and native culture, including songs and dances, makes an attractive introduction to this age-old problem of finding a new source of a non-renewable resource. An excellent example of the value of a carefully produced and thought-out industrial film.

**AUDIENCE:** Junior high; senior high; college; adult

## **COLOR, TEXTURE AND FINISH**

Color—Sound  
20 minutes

Association Films, Inc.  
Free Loan

In this imaginative production the products of aluminum are examined for color and texture, and questions are answered regarding their variety, strength and uses. Highly original in production, it is a commercial film with a place in any catalog of outstanding industrial films. One sequence emphasizes the functional use of aluminum as well as its beauty. The film may generally be summed up as an impressionistic device, with a strong appeal to the senses, calculated to rouse interest in the aluminum industry. Chiefly valuable for exploring the usages of aluminum and developing interest in it.

**AUDIENCE:** Senior high; college; adult

## **ERUPTION OF KILAUEA, 1959-60**

**Color—Sound  
27½ minutes**

**Geological Survey  
Inquire**

Many films have been made on the cause and effect of volcanic eruptions. Most of them go into great detail about the early earth formation with its iron core surrounded by the rock and thin crust upon which we live. Folds and faults have been explicitly illustrated and volcanic belts explained in animation and detail.

But this film adds the dramatic on-the-scene account both audio and visual to the devastating effect of volcanic action. It documents the eruption of Kilauea on the island of Hawaii from its inception in November 1959 in a small, relatively harmless pit crater through the violent eruption and its tragic aftermath. The evacuation of a town and the destruction of more than 2500 acres of land is depicted by skilled and hardy cameramen in breath-taking closeups. The film would be exciting and interesting to any audience, but as an example of the violence of nature along with floods and hurricanes, this deserves to be shown in schools if only as a reminder that nature can be as devastating as man.

**AUDIENCE:** Junior high; high school; college; adult

## **FORGOTTEN ORE OF EAGLE MOUNTAIN**

**Color—Sound  
25 minutes**

**Kaiser Steel Corp.  
Free Loan**

Eagle Mountain in Southern California contains a particularly high quality of iron ore indispensable to the making of high-grade steel. The addition of special coal and limestone from other parts of the country helps assure the quality of the final product.

Early photographic prints and clear attractive animation detail the open hearth and other methods involved in steel making. Sequences following effectively demonstrate molten steel being thinned and formed into usable shapes. From mines to furnace; from rolling mills to market this graphic documentary emphasizes the importance and utility of steel and at the end there is a brief and well earned tribute to the workers involved and the roles they play.

Stunning photography, coupled with diverting animation and a happy blend of ancient photographic stills make this an outstanding film in its class.

**AUDIENCE:** Junior high; senior high; adult

## FUTURES IN STEEL

Color—Sound  
30 minutes

Modern Talking Picture Service  
Free Loan

After a brief introduction detailing methods of iron-mongering in 1650, the story moves up to date to show a group of "loopers" (young apprentices) who are being conducted on a tour (the loop) of a modern steel production plant.

From mining to laboratory these young men are given a chance to determine their own congenial niche in the steel industry. They watch the introduction of lowgrade ores such as taconite as a necessary adjunct to dwindling current supplies of high-grade ores. They are given the opportunity to study the latest improvements in the strength of steel and its many uses. One novel sequence highlights the technical service end of the steel industry—freight train distribution, electronic generation of power for steel, and newly improved methods of "puddling".

Intended as a recruiting device to interest young men in a career in steel, this works out as a satisfactory introduction to a great industry. It is significant that there is less emphasis on the mining of ores than there is on new methods of production.

AUDIENCE: Junior high; senior high; adult

## THE MAGIC OF SULPHUR

Color—Sound  
27 minutes

U. S. Bureau of Mines  
Free Loan

Replacing and updating the original film "Sulphur", this latest production fills a gap in the non-renewable category. It begins with the history of sulphur, its discovery and early uses—in fire, lime bleaching, etc., up to its modern application made possible by a mining process patented by Herman Frasch in 1891. Detailed animation effectively describes processes used today in sulphur mining and manufacture while live sequences document modern production and distribution. The many uses of sulphur in industrial, medical and agricultural fields are related to daily life by examples of the many products which incorporate this element.

Well photographed, edited and scored, this is one of the few and possibly the best of the films on this subject.

AUDIENCE: Junior high; senior high; adult

## THE MAN IN THE DOORWAY

Color—Sound  
30 minutes

Modern Talking Picture Service  
Free Loan

Science in general and chemistry in particular have promoted conservation in many areas, and this film, produced by American Cyanamid, suggests future contributions which the chemical industry may make as well as outlining its past accomplishments.

Fertilizers, insecticides, use of low-grade ores and wood by-products, drugs for the preservation of human resources, plastics and other substitutes are included. Although slightly optimistic as to the industry's productivity, the film makes clear the need for conservation and some of the ways in which man can attack conservation problems. The production is excellent technically.

AUDIENCE: Junior high; senior high; adult

## PACKAGED POWER

Color—Sound  
30 minutes

Modern Talking Picture Service  
Free Loan

Beginning by cataloging the riches of the earth's crust, this film focuses its attention upon bauxite, which may be processed into aluminum powder which in turn is processed, via the use of electricity, into aluminum.

Mining scenes in British Guiana cover the use of hydraulic power in drilling. Ships then transport the ore to eastern Canada where the unfinished product is converted into aluminum powder (alumina) by use of the electric power developed in the Saguenay Basin. Rolling mills in Great Britain complete the process for the market. The film includes one sequence on the importance of aluminum to a single British Island, Jamaica, and ends with the building of huge power plants in British Columbia, which will double the production of aluminum.

The part Canada plays in the manufacture of aluminum provides a particularly clear picture of man's ingenuity in wresting a commercial product from the earth. Especially significant is the part this industry plays in our present day economy.

AUDIENCE: Senior high; college; adult

## THE PETRIFIED RIVER

Color—Sound  
28 minutes

U. S. Bureau of Mines  
M. P. O.—Sale

Made in cooperation with the Union Carbon and Carbide Corporation and produced with the technical assistance of the U.S. Atomic Energy Commission, this film serves to explain the importance of uranium and its use in nuclear fission.

First the film explains the geologic theory of the formation of uranium deposits in the beds of prehistoric rivers of the Colorado Plateau. Then it graphically illustrates the prospecting, exploration, mining and milling of uranium ores today. It goes on to introduce us to the modern grinding mills and acid tanks treating tons of rock to recover pounds of precious uranium concentrates.

Unusually clear animation demonstrates how uranium's energy will be released and controlled to generate power for great cities in the future. Other sequences show the atomic reactor at Oak Ridge, Tennessee, and the preparation of radioactive isotopes with a demonstration of their uses in scientific research, in the fight against disease and in the search of mankind for the secrets of a better life.

Better than average photography and production make this film of general interest. It should be noted that geologists and social scientists will find it of particular interest.

AUDIENCE: Junior high; senior high; college; adult

## ROAD OF IRON

Black & White—Sound  
42 minutes

National Film Board of Canada  
Rental—Sale

Geologists seek iron ore under war pressures, and an iron ore field is opened at Ungava in Northern Quebec.

The tremendous problems of transporting the ore, and their solution by modern technology and human perseverance are documented in the National Film Board of Canada production. Planning and financing groups, labor, roads, railroads, towns, power supplies, air fields, dams, machinery and food all play essential parts. The film imparts a great sense of adventure in discovering new sources in the wilderness and in conquering that wilderness in the name of civilization.

AUDIENCE: Junior high; senior high; college; adult

## RUBBER FROM OIL

Color—Sound  
30 minutes

U. S. Bureau of Mines  
Free Loan

This is a story of substitutes. Research chemists worked indefatigably to devise a formula for making rubber from oil—to develop a synthetic rubber that could be vulcanized. A number of factors led to the use of dry ice which made possible vulcanization and resulted in what is called butyl rubber. Problems remained, however, as to how strong (air proof, tensile, weather proof) the substitute would be. After many tests a small pilot plant was built and proved successful, but while the pilot plant proved the value of butyl rubber, it took World War II to prove its mass distribution value. Under pressure many plants worked at top speed to contribute synthetic rubber to the war effort.

Peace offered a new challenge for there are 40,000 articles using natural rubber. The final sequence of the film is concerned with the satisfactory production of rubber for auto tires and linings, boots and shoes, and everything from a workable hose to footballs and baby clothes. A good example of a film on man-made substitutes and highly important because it raises the issue as to the amount of drain man-made substitutes make on natural resources.

AUDIENCE: Senior high; college

## TREASURES OF THE EARTH

Color & Black & White—Sound  
11 minutes

Churchill Films  
Rental—Sale

Illustrated with charming and imaginative animation, this film tells the story of mineral deposits in the earth. It reviews ancient forces acting on the earth's crust and the resultant changes, and then goes on to show how minerals tend to be concentrated—by being deposited in veins, washed into stream beds and low areas, and by seeping through the earth in solution. A sequence describes how oil is trapped in the earth's folds and how coal is formed.

Thanks to a logical identification with young people through the use of live photography plus a spirited sound track, this film helps the student to relate the age-old process of earth change to his personal experience with rocks and minerals. A very entertaining introduction to the subject of non-renewables.

AUDIENCE: Elementary; junior high

## RESOURCES AND PEOPLE

### A IS FOR ATOM

Color—Sound;  
Animation  
15 minutes

U. S. Atomic Energy Commission  
Free Loan

Still a classic example as the simplified explanation of nuclear fission and the atomic element, probably because it employs a straightforward and arresting animation.

The film defines electrons, protons and neutrons plus the kind of "cosmic glue" holding atoms together. A brief sequence introduces the elements beginning with hydrogen (one electron) to uranium (92). Isotopes are introduced and there is a sequence in which uranium is bombarded by neutrons and nuclear fission takes place.

The story makes clear two primary purposes for peaceful use of the nuclear reactor. One is controlled heat for industry (possibly in time eliminating both coal and petroleum). The other is the detector ability of the reactor, which is shown as it tests the efficacy of fertilizers on plant growth and its uses in medicine, biochemistry and metallurgy. The film concludes with a plea for common understanding of this greatest man-made force.

AUDIENCE: Junior high; senior high; college; adult

### AIR POLLUTION—EVERYONE'S BUSINESS

Color—Sound  
20 minutes

Kaiser Steel Corporation  
Free Loan

One of the latest films in the new problem field of air pollution, this demonstrates the manner in which ordinary daily activities of many individuals and industries combine to pollute the air. Graphic and easy-to-follow animation indicates the way in which the pollutants in the air merge with elements like ozone to create smog. The picture goes on to describe the efforts of one particular steel company in the far West to solve its own air pollution problems. Solutions are researched in the laboratory, tested in the field, and proven at the factory.

The problem of air pollution is worthwhile enough on its own merit to warrant careful attention, but even more important is the fact that this is the visual record of an industrial company which appears to be doing something about the problem at its source.

AUDIENCE: Senior high; college; adult

## **THE BELL SOLAR BATTERY**

Color—Sound  
12 minutes

Bell Telephone local office  
Free Loan

After making the point that all energy comes indirectly from the sun, the film documents the construction of a solar battery to use this energy in ways that had not been utilized before. This was possible by means of using the low cost source of power made available by the invention of the power transistor. A demonstration is given of the working of a radio set powered by the sun. The method of making the battery by using silicon from sand and arsenic is detailed. The crystallization of the silicon, and its processes, are then described. The film ends with a suggestion as to possibilities for the future.

AUDIENCE: Junior high; senior high; college; adult

## **THE CHANGING CITY**

Color—Sound  
16 minutes

Churchill Films  
Sale—Rental

Introducing the economic, social and cultural advantages of the city plus the use of animation showing its historical pattern of growth through the nineteenth century to its present explosive growth, this film explains the reason for cities. Cities don't just grow the story emphasizes; they grow because of the need of people for cities. The film documents problems of land use, blighted areas, urban renewal, population density, and the desperate need for civic planning. Graphic animation stresses the need of space for culture, welfare, education, and health. A tempered well-reasoned production which does not fall prey to extremists on either side of the productivity-conservation debate.

AUDIENCE: Junior high; senior high; adult

## **THE CITY AND THE FUTURE**

Black & White—Sound  
28 minutes

Sterling Educational Films  
Rental—Sale

### **PART VI of LEWIS MUMFORD ON THE CITY**

Based on Lewis Mumford's justly celebrated book *The City in History*, this series establishes through film taken in eleven coun-

tries and by the personal and cogent statements of Mr. Mumford a definitive and important documentary on the problems of the city.

Opening with scenes of what many dislike about the city, the film shows that these or other discomforts have caused many to flee the city in spirit or in reality. But shall "man's most precious collective expression" be allowed to vanish or decay? Examples of new developments which Mr. Mumford feels are promising include the best of the new shopping centers, industrial and commercial parks, the best suburbs where the planners recognized the need for natural surroundings, and examples of more imaginative architecture.

This particular segment is recommended particularly because of its emphasis on this urgency of choice between low-grade urban sprawl and the need for a new type of regional city. As the store-house of man's accumulated knowledge and institutions, the city must survive; it can survive in a better form if these changes can be realized.

AUDIENCE: High school; college; adult

## ENERGETICALLY YOURS

Color—Sound;

Modern Talking Picture Service

Animation

Free Loan

13 minutes

The advent of the Industrial Revolution and the great accompanying increase in mechanical inventions resulted in increasing demands for power. This spirited animation represents an informal and animated account of man's search for new sources of energy and illustrates how the discovery of each new source altered his way of life. The film emphasizes the important role which freedom of action and freedom to conduct research will play in providing fuels for the vast energy requirements of the future.

With highly imaginative animation inspired by Ronald Searle (the British cartoonist) and humorous narration, this makes an effective and entertaining approach to the study of energy, beginning with James Watt and ending with the Atomic Energy Commission. The story may be somewhat simplified, but the delightful animation should hold a wide age group.

AUDIENCE: Junior high; senior high; college; adult

## THE GREEN CITY

Color—Sound  
27 minutes

Stuart Finley  
Sale

Documenting the continuing battle between commercial interests and those concerned with the preservation of the natural beauty of this country, this film pleads for a reconciliation of the two points of view. It illustrates, for example, the retention of the natural beauties of a proposed building site which may involve increased initial expense on the part of the developer but retains the values of more attractive living conditions.

Sequences are included on the rapid proliferation of housing in California at the expense of land previously devoted to agriculture, the bitter fight to save Breezy Point in the New York City area as well as the ever-present Indiana Dunes controversy. Although some problems are already in the stage of solution, the film's intrinsic value lies in the fact that it dramatizes the nature of the battle and the need for cooperative and long-range planning.

AUDIENCE: High school; adult

## LAND OF WHITE ALICE

Color—Sound  
22 minutes

Bell Telephone local office or  
Western Electric Co., Inc.  
Free Loan

White Alice is the code name of an outlying telephone relay post at Granite Mountain, Alaska. Its imposing buildings and equipment serve to emphasize the importance of communications to the vast area of the 49th State.

The story documents the life of a bush pilot on a typical winter day as he forwards needed supplies to remote areas, carries an occasional passenger, and at all times checks on isolated cabins to ensure the safety of trappers and hunters. The discovery of a seriously ill trapper forms the basic part of the story, but the ramifications of this simple event in the bush pilot's daily routine highlight many phases of Alaskan winter life; the repairing of Eskimo kayaks; a dance rehearsal at Nome; the defense activities of the army; and even a music ensemble practicing at the University at Fairbanks. An authentic and interesting cast of characters is introduced, including snow-harassed mailmen, trappers, traders, soldiers and just plain citizens, all working out a hard winter: some relaxing in the local poolroom, others digging out after a blizzard. Although

hardly in the category of conservation, this film helps to promote an understanding of Alaskan life and people.

The vastness of the area concerned, strikingly photographed, emphasizes the film's point. An original music score is effective in creating the suitable mood without distraction. Recommended not only for its information value, but for particular interests of students of sociology.

AUDIENCE: Junior high; senior high; college; adult

## MAN OF ACTION

Color—Sound; Animation  
13 minutes

Association Films, Inc.  
Rental

This bright animation details the need for slum clearance and city planning. The role of the individual is particularly emphasized as one citizen, realizing the immediacy of the situation, brings slum clearance to the attention of the proper authorities and follows through with personal action. Although the film is humorous in nature it makes its points effectively. The introduction of Satan as the villain of the piece may seem slightly far-fetched, but as is pointed out, there is a very real devil concerned—apathy.

AUDIENCE: Senior high; college; adult

## MARSHLAND IS NOT WASTELAND

Color—Sound  
14 minutes

Roy Wilcox Productions  
Inquire

This unusually beautiful film explodes the myth that marshes are wastes and must be "developed" as home or industrial sites to be economically important. Our coastal marshes are actually extremely valuable as food-producing areas and nursery grounds for mollusks and certain commercially important fishes as well as nesting and feeding areas for various sea birds and migratory game birds.

When garbage trucks followed by bulldozers enter the marshlands, the waters are polluted, spawning grounds are lost, and eventually the fisherman's yield is greatly reduced or even eliminated. The economic and esthetic value of marshes is carefully spelled out so that no one may misunderstand.

AUDIENCE: Junior high; high school; college; adult

## **MY OWN YARD TO PLAY IN**

**Black & White—Sound  
10 minutes**

**Contemporary Films  
Rental—Sale**

This simple, unpretentious film consists of shots of children at play in city streets, on hazardous building sites and asphalt playgrounds. In the background the familiar noises of the city may be heard along with children's voices at play gradually resolving into an animated discussion of their activities and ambitions. Some of the dreams expressed are grandiose, some are exciting, some are amusing, until a little girl expresses her own ambition by saying very quietly, "I want my own yard to play in."

Excellent camerawork, clever intercuts and superior editing, and particularly sensitive production dramatize far better than more elaborate films the need for space in the city and the need for carefully planning such space.

**AUDIENCE:** College and adult discussion groups

## **OUR CHANGING ENVIRONMENT**

**Color—Sound  
17½ minutes**

**Encyclopaedia Britannica Films  
Rental—Sale**

The film begins by contrasting the natural ecosystem of a pond with our own environment, the city. A brief historical review of man's increasing pressures on his environment leads to a detailed sequence of the problems created by such pressures. Problems including urban sprawl, air and water pollution, and slums are introduced and the question raised as to whether these problems must be the perpetual legacy of the Industrial Age. In reply the film presents four positive examples of man's ability to constructively plan for the future of his cities and his land; scientific farming, improved tree farming, installation of filtration plants and a graphic example of city planning itself suggest that a solution is possible.

The story emphasizes that man is the only living creature capable of such planning and that it is possible only upon his acceptance of the fact that he and his resources are interdependent and indivisible.

**AUDIENCE:** Junior high; senior high; adult

## **THE POND AND THE CITY**

Color—Sound  
16½ minutes

Encyclopaedia Britannica Films, Inc.  
Rental—Sale

This is an impact film which presents a disturbing account of man's current relationship to the land upon which the security of his future depends. The beautiful natural setting of a pond is contrasted with the problems of a bustling city environment. The narrator, using statements from Thoreau, Whitman, and others, documents the rapid deterioration of the natural environment. Implied in the film are a number of questions for the viewer to consider: Is urbanization worth what is being lost? Do I really care about these problems? What can I do to alter the situation? Hopefully the audience will feel impelled to add its efforts to the conservation battle on a local level.

AUDIENCE: High school; college; adult

## **REVOLUTION ON THE LAND**

Black & White—Sound  
30 minutes

International Film Bureau  
Sale

This able documentary dramatizes the change in status of today's farmer; his dependence upon factors other than land and weather and his rapid transformation into a bookkeeper. By means of personal interviews with farmers and business men, we observe the gradual fading away of the old-fashioned independent landowner, his need to modernize, to spend large sums of money to continue to farm, and we see him confronted with the necessity of integrating with a large business complex which may eventually reduce him to the status of a "hired hand". One possible answer to the problem is explored in the frank discussion of the Farm Cooperative which, with all its faults, is suggested as a logical solution. Ample time is given to both business and Farmer-Cooperative representatives, and the film is recommended as a revealing and candid presentation of the problem.

AUDIENCE: High school; adult

## **THE SQUEEZE**

**Black & White—Sound  
10 minutes**

**Hilary Harris Films, Inc.  
Rental—Sale**

A hard-hitting, provocative film on the population explosion. Its style as well as its message may well be thought controversial but it never fails to hold attention. A rapid cutting technique makes it taut and pointed as the agony and despair of mothers and children from all over the world are brought together in a kind of jigsaw puzzle of misery. The lesson is unmistakable; in an overpopulated world the individual loses his identity, his opportunity and often his life. Also available in 35mm, this production is recommended as a savage introduction to one of the greatest problems today.

**AUDIENCE:** Teachers; adult discussion groups

## **SWAMP**

**Color—Sound  
10 minutes**

**University of Minnesota  
Apply**

A Minnesota swamp is turned into a dump, apparently as an after-effect of urban development. The result is the destruction of the wildlife which previously had made its home in this particular wetland area. In order to bolster its points, the film shrewdly includes most attractive photography not only of the natural bird and other animal habitat but of their encroaching fate. Although lack of narration may prove a handicap in exact identification of the wildlife, there are moments of such great beauty and startling photography that it may be classified as an outstanding film quite apart from its point of view. Largely intended as an introduction to group discussion of the use and misuse of open space.

**AUDIENCE:** College; adult

## **THE WORLD THAT NATURE FORGOT**

**Color—Sound;  
Animation  
30 minutes**

**Modern Talking Picture Service  
Free Loan**

This film dramatizes the contribution of plastics to the modern world. It projects into the future by showing the shape of various

synthetics which are being developed for popular use. Going beyond the surface level of mere substitutes, the story takes us via fascinating and detailed sequences into a world of the atoms and molecules that make such substitutes possible.

This is probably one of the most outstanding films produced within the last eight years. A highly imaginative and expensive production together with special effects and lighting, it could hold its own artistically with any 35mm production. An amazing example of the efficacy of the proper selection of producer, director and cameramen as well as writers. A fine descriptive musical score specially composed by Benjamin Frankel is particularly noteworthy.

AUDIENCE: Junior high; senior high; college; adult

## ECOLOGY

### BETWEEN THE TIDES

Color—Sound  
22 minutes

Contemporary Films  
Rental—Sale

A new environment, this time the rich natural life of Britain's coastal areas and its inhabitants, brings us effective pictorial information about an everchanging community. Again the predator's story, of hungry gulls descending on beach creatures as well as the struggle for survival continually waged on the ocean floor, is filmed with considerable dramatic effect. The film serves also as an introduction to the fascinating creatures found in rock pools and shallow waters of this particular environment, as well as pictorializing the breeding grounds of Britain's sea birds. An excellent film to use as an introduction to a new ecological community—that of the littoral waters of any country.

AUDIENCE: Junior high; senior high; college; adult

## THE COMMUNITY

Color—Sound  
11 minutes

Encyclopaedia Britannica Films  
Rental—Sale

This film introduces the basic vocabulary of ecology—primary food producer, primary carnivore, pyramid of numbers, niche, food chains, etc. The application of these terms to actual relationships in nature is illustrated in grassland, western pine forest, and inter-

tidal communities. At first labels are applied to the occupant of each niche to identify its position in the community. Eventually the student is asked to supply this information to assure that he understands the meaning of each term.

This is an ideal teaching film in that it is brief, thorough, and the material is attractively presented. It should serve as a good means of presenting a student with the basic tools for the study of ecology.

**AUDIENCE:** High school; college

## **GRASS BLADE JUNGLE**

Color—Sound  
11 minutes

Bailey Films  
Rental—Sale

The jungle of the title can be found in one's backyard, a vacant lot, or garden. The "beasts" of this jungle can best be observed through a magnifying glass for they belong to the Phylum Arthropoda. Various members of this group—chilopods (centipedes), diplopods (millipedes), insects, crustaceans (saw bugs), and arachnids (spiders)—are presented. Their feeding habits and identifying characteristics are illustrated.

Clear and well-photographed sequences as well as an excellent script make this a good introduction to the study of arthropoda. The student's curiosity is aroused, and the film introduces many topics for further exploration. Ecology and conservation may be brought into any discussion of the film by mentioning the tremendous reproductive capacity of arthropoda and some of the checks on their population growth mentioned in the film.

**AUDIENCE:** Upper elementary; junior high

## **LIFE IN THE WOODLOT**

Color—Sound  
17 minutes

McGraw-Hill  
Rental—Sale

According to the producer, the purpose of this film is "to study the hidden world of the underbrush; to serve as warning that the complete destruction of one form could topple the pyramid of life by which the lower orders sustain and support the higher orders."

There is an unusual dichotomy in this picture, and in no way does it detract from its appeal. To the sportsman the story will come to life as the camera catches the drumming grouse as he seeks

to engage the attention of the potential mate and as the inevitable conflict is dramatized by tiny grouse chicks feeding on grubs but menaced by a snake which is in turn captured by an alert hawk. The ecologist will find much of interest in the implicit story of animals and plants in their environment; plant succession and the growth of a seedling to climax forest. But there is more to the film than this, because it has an overall philosophy which should be of particular interest today, in that it serves as an introduction to an area relatively untouched by man and successfully maintaining a natural balance of its own. As such it demands the special attention of the student, the expert, the philosopher and the average citizen who believes in a kind of religion of nature. For a film with modest goals this carries amazing weight.

AUDIENCE: Junior high; senior high; college; adult

## PLANT AND ANIMAL COMMUNITIES: THE PHYSICAL ENVIRONMENT

Color—Sound  
11 minutes

Coronet Films  
Rental—Sale

The various physical conditions (altitude and atmospheric conditions, heat and light, water, soil) of several different environments are described in this film together with the effects these conditions have on plant and animal communities of the area. A deciduous forest, a mountain coniferous forest, grassland, and desert are the environments studied.

As an introduction to the concept of a biome this is a very useful film. The narration and photography are unusually competent, and the careful use of labels over the photographs emphasizes the ideas presented.

AUDIENCE: Junior high; high school

## POLAR ECOLOGY

Color—Sound  
23 minutes

Motion Picture Production  
Inquire

This film represents an admirable introduction to the flora and fauna of the Arctic regions and an excellent medium for making such abstract concepts of the classroom as food chains, predator-prey relationships, and pyramid of numbers understandable in

terms of their actual operation in a natural community. As an introduction to ecology this film is especially valuable since these phenomena are more readily observable in the Arctic where populations of certain species fluctuate greatly over a regular period of years.

The lemmings and their relationships to their predators and the plants forming their food supply are the major topic of the Arctic portion of the film. In the Antarctic section the principal emphasis is upon the penguin, its life history, and the role of the nearby colonies of other seabirds.

AUDIENCE: High school; college; adult

## POPULATION ECOLOGY

Color—Sound  
21 minutes

Encyclopaedia Britannica Films  
Rental—Sale

The principles of population dynamics are introduced through controlled experiments with mice and fruit flies. These demonstrate that an animal population will reach a certain size and remain there unless there is a sudden change in conditions. Births and deaths are in approximate balance.

Human populations once behaved in the same way when man was a hunter and a food-gatherer. As civilization developed, man's numbers would increase only to level off again. Today there is no sign of a leveling off. Our current "population explosion", the result of man's ability to change his environment, is chillingly documented in a sequence showing the human misery which has resulted in many places from overpopulation.

AUDIENCE: High school; college; adult

## SUCCESSION FROM SAND DUNE TO FOREST

Color—Sound  
16 minutes

Encyclopaedia Britannica Films, Inc.  
Rental—Sale

This film documents the best-studied example of ecological succession—the dunes area along the southern end of Lake Michigan where various stages of this process are continually visible. Each phase is examined and explained. These are named for the dominant plants which in this area are grasses, cottonwoods, pines, oaks, and maple-beech climax. The basic underlying soil is still sand

despite the accumulations of humus over a period of many years; therefore "blowouts" can occur at any time returning the area to sand, and the cycle begins again.

AUDIENCE: High school; college

## THE TROPICAL RAIN FOREST

Color—Sound  
17 minutes

Encyclopaedia Britannica Films, Inc.  
Rental—Sale

Since the tropical rain forest contains the largest variety of plant and animal life of any biome, it is hard to describe in a short film. This particular one represents the outstanding effort on the topic to date. The layered structure of vegetation is clearly portrayed through the use of drawings and photographs. The conditions of soil, temperature, and moisture peculiar to this area are also well presented. Comparison to the temperate deciduous forest with which more students would be familiar helps to explain this particular forest.

In depicting the fauna little time is spent on the larger animals—relatively unimportant in the system; principal attention is given to the dominant animals of each layer—birds, monkeys, and the most numerous of all, the arachnids of the forest floor.

The film is distinguished by some unusually fine photography and the judicious use of natural sounds.

AUDIENCE: High school; college; adult

## WHAT IS ECOLOGY?

Color—Sound  
11 minutes

Encyclopaedia Britannica Films, Inc.  
Rental—Sale

As an introduction to the study of ecology, this film is both brief and thorough. The basic concepts of the subject are presented through the introduction of the major biomes of the world with brief descriptions of environmental characteristics including typical plants and animals. Titles superimposed over these sequences point out the applications of ecology's specialized terms.

The study of ecology is given its proper importance from the opening scene. An auction of a farmer's machinery and household effects is in progress; he failed because he did not consider ecological principles in his farming. Shots of the dust bowl and the

floods which have resulted from man's abuse of the land further emphasize the necessity of understanding the interrelationships involved in one's environment before attempting any alteration.

AUDIENCE: High school; college; adult

## **WORLD IN A MARSH**

Color—Sound  
22 minutes

McGraw-Hill  
Rental—Sale

The ecological story reaches a new high in beauty and significance in this meticulous filming of an animal and plant community known as a marsh. For thousands of years insects as well as plants and animals have become adapted to this strange floating world. The camera acts as a microscope in probing into the life forms that dwell beneath the water's surface, recording the habits as well as the habitats of the creatures involved. A particularly effective sequence of the birth of a dragonfly, a novel presentation of the courting of the newt, the activities of the bullfrogs and the life cycle of the marsh plants are delineated with great care and a sensitive hand. The story adds up to a striking visualization of the balance of nature plus a most effective emphasis on the interrelationship between the plants and the animals. An intimate view of a microscopic world of nature.

AUDIENCE: Junior high; senior high; college; adult

## FILMS TO FIT SPECIFIC PROBLEMS

### PESTICIDES

#### CHEMICAL BIOCIDES

Color—Sound  
7 minutes

Tennessee State Fish  
and Game Commission  
Inquire

Intended for an audience of pesticide users, this film demonstrates the results of carelessness in the handling of these poisons. The introduction to the film details the development of effective pesticides, and a short sequence in the laboratory shows what minute quantities are lethal to fish. The major portion of the film deals with a single case of misuse.

Pesticides, incorrectly applied so that the residue was washed into a small stream, destroyed not only the valuable game fish it contained but the insects which served as food for the fish. The concentration of pesticides in the water was also a possible hazard to larger animals and man. The stream was closed, and the process of rebuilding its insect and fish populations may take years—provided new contamination does not occur.

AUDIENCE: Senior high; college; adult

#### CHEMICAL CONQUEST

Color—Sound  
25 minutes

National Film Board of Canada  
Rental—Sale

Chemical research on the control of insect pests which threaten crops is documented in this film. A complete picture of the various methods and problems involved is given, and the necessity for careful research emphasized. The film shows that ecological factors must be considered equally as important as efficient mass spraying techniques. This timely problem of pests and pesticides is treated with a thorough understanding.

AUDIENCE: Junior high; senior high; college

## **MODERN MOSQUITO CONTROL**

Color—Sound  
30 minutes

Modern Talking Picture Service  
Free

This film deals with the life cycle of the mosquito and raises the problem of its control. Chief emphasis is placed on the elimination and treatment of the breeding area by sanitary landfill, efficient drainage, alteration of the physical character of the affected land by means of impoundment (flooding low-lying areas to prevent the laying of eggs in moist soil). The story also details clean-up methods for water containers near homes by use of oil which shuts out air or helps spread insecticides. The insecticide used is Melathion, developed and made increasingly powerful over the years in order to cope with the diseases engendered by the mosquito. The film repeatedly emphasizes the fact that this potent pesticide need not harm people, pets or food products. It is a graphic, well-organized, and provocative argument that deserves attention of all students interested in the research being accomplished today to conquer the pests of the rival insect world.

AUDIENCE: Senior high; adult

## **NATURAL ENEMIES OF INSECT PESTS**

Color—Sound  
27 minutes

University of California  
Rental—Sale

Well documented with scientific observations, and occasionally repetitive, this film makes an immediate impression as being produced by people who know what they are about and have the ability to present a problem with some detachment. Particularly, it discusses the efforts of citrus fruit growers to control insect pests by exploiting and making use of the natural enemies of these harmful insects. The depredations of mealy bugs, squash bugs, army worms, scales, mites, aphids and others are delineated in striking microscopic shots. Aligned on the opposite side are the lady beetles, green lacewings, certain wasps and flies devouring the pests. These insect battle fields introduce natural allies in the fight for pest control. The story goes on to warn against conditions which may tend to upset a natural balance by introducing the effects of chemical pesticides on beneficial species.

The film also goes into the laboratory for visualizations of testing effects of sprays as well as into an insectory, or nursery for raising beneficial insects. All in all a valuable study in that it raises problems and describes effects created by widespread spraying of chemical pesticides. School and college biology classes will find it adds dimension to entomological studies.

AUDIENCE: Senior high; college; adult

## **POISONS, PESTS AND PEOPLE**

Black & White—Sound  
Two parts—30 minutes each

Contemporary Films, Inc.  
Sale—Rental

This documentary meticulously examines the problem of man's war against insect pests. Part I concentrates on the actual damage caused by locusts, potato beetles, tobacco worms. It points out that science was forced to find a potent means of protection for man's source of food. It covers in detail the pesticides found effective and makes the point that in coping with an enemy both resilient and resistant, the poisons had to be compounded frequently to meet the need.

Part II for possibly the first time in documentary film history emphasizes that there is a danger inherent in the constant compounding of the pesticides. It reveals that pesticides when carelessly used or used as part of a mass spraying program may have serious effects on human as well as animal life, and it suggests that there is a dangerous lag between research and use. All facets of the problem are discussed frankly and openly with doctors, entomologists, conservationists and pesticide manufacturers. A provocative and thoughtful film.

AUDIENCE: High school; college; adult

## **THE RIVAL WORLD**

Color—Sound  
27 minutes

Shell Oil Company  
Free Loan

Insect pests attack man on all sides, spreading disease directly, destroying his food and ravaging the land. This film makes the danger clear, and goes on to show how man fights his insect enemies through scientific research. Development of pesticides in the laboratory, and their use in the field, is excitingly documented. Emphasis is laid on the need for still more efficient methods. Unfortunately, the importance of careful study of ecological factors and the dangers of indiscriminate spraying are not made clear.

AUDIENCE: Junior high; senior high; college; adult

## POLLUTION

### AIR POLLUTION FILMS

Color—Sound  
5 minutes each

U. S. Public Health Service  
Free Loan

#### SOURCES OF AIR POLLUTION

One of three short films which should if possible be shown as a group. With clarity and accuracy this particular production stresses the chemical make-up of the wastes in the air and describes their biological effects. Another asset is its successful effort to tie in other problems of conservation, namely erosion and water pollution.

#### EFFECTS OF AIR POLLUTION

Title speaks for itself and graphically depicts effect of air pollution on humans as well as animal life. Also its impact on the community itself. Perhaps most important is the underlining of the fact that the problem is not simply limited to occasional and intense periods of smog but that danger lies also in that continued exposure to a lesser degree of pollution over an extended period of time.

#### CONTROL OF AIR POLLUTION

A recapitulation of the content of the films mentioned above. A trifle oversimplified and seems to skirt the obvious need for expenditure of large sums to effect proper control. Nevertheless highly useful if used as part of the series.

AUDIENCE: Junior high; senior high; adult

## COAL AND WATER

Color—Sound  
23 minutes

Stuart Finley  
Rental—Sale

Of particular interest to a general audience concerned with water pollution, this story outlines the problem of river pollution caused by coal mining. Specifically it illustrates the problem of "black water" caused by coal affluents from refineries adjacent to rivers. The intent of the industry to correct this condition through constant research and practical application is described as being a responsibility of both industry and local governments. Also introducing the as yet unsolved problem of "acid mine drainage", this film may be generally described as a good example of how the conscience of an industry can ameliorate pollution when long-range planning is accepted and carried out.

AUDIENCE: Senior high; adult

## **CRISIS ON THE KANAWHA**

Color—Sound  
20 minutes

Stuart Finley  
Sale

The Kanawha River is in West Virginia, and this is the story of the planning, the research, and the action which is being taken to reduce its pollution. An almost endless chain of sewer outfalls from towns along its banks; industrial wastage from modern chemical plants; even the more modest contamination of liquid waste from large dairy holdings all have contributed to the problem of the river.

This film documents the cost of rehabilitation and research; explores the cooperative efforts of town and industry to provide sewage and disposal plants, the several types of filtration plants necessary to fit particular problems, and finally is able to report progress and a significant concept almost as valuable as the action taken. The concept is simply that stream pollution need not be accepted as a corollary of progress. Technological knowledge and legal remedies are available. Only the willingness to pay the price remains the major problem and that too is being handled by mass communication of necessary information to all people of the river valley.

Who owns the river? This documentary makes it clear that the boy who wants to swim, the fisherman seeking a good day's catch, the property owners, the industries, the boatman, the city down river, and the people of the valley all have inalienable rights. They are all owners. They are all responsible.

AUDIENCE: Junior high; senior high; adult

## **GEORGE WASHINGTON'S RIVER**

Color—Sound  
28 minutes

U. S. Public Health Service  
Apply

Washington, D. C., with its problem of pollution of the Potomac, is presented as an example of problems occurring throughout the nation due to growing and spreading population and industry. Polluted water threatens the public health and also destroys natural beauty, and the need for concerted community action is immediate. Examples of such action on the Potomac problem are given, as well as instances of failure to act. The film may well serve as an object to every growing community.

AUDIENCE: Elementary; junior high; senior high; adult groups

## **HOW OUR TOWN SAVED THE RIVER**

Color—Sound  
30 minutes

Portland Cement Association  
Free Loan

Set against the background of a town council meeting, the story brings the old Yankee "town meeting" up to date, in presenting the problem of a recent cancellation by a large industrial company of its plans to erect a plant within the township. The town's water commissioner with an ingenious display of charts and graphs plus a town-made motion picture produced by students at the local college illustrates the reason for the cancellation. His point that the water of a neighboring river is polluted and his demand for a modern sewage disposal plant are met by the old cry of "Taxes!", but his ingenuity overcomes these objections, using the ingenious device of showing that the actual cost of taxes would be less than a candy bar per person per day.

The film ends by detailing a citizens' campaign to pass the bond issue at a local referendum. In dealing with the water problems of this particular town, it serves its purpose well.

**AUDIENCE:** Senior high; adult

## **RECREATION**

### **BEACH HIKE**

Color—Sound  
17 minutes

Northern Films  
Sale

Here is a literal documentation of a twenty-mile, three-day hike along the rugged shoreline of the Olympic National Park, led by none other than Justice William O. Douglas of the United States Supreme Court. As the group progresses along the beach, there are the usual finds of crustaceans and driftwood, weird aquatic plant life and such creatures of the littoral waters as starfish and chitons (molluscs), all of which Justice Douglas rightly advises the hikers to leave for others to see. But the great contribution to the film is that the Justice indelibly marks the production with his own personality and knowledge in such a way that what might have become just another field trip turns into a highly eloquent plea for preservation of this country's great wilderness areas. As the hike ends on a newly-developed, four-lane highway, he asks, "Do roads have to go everywhere? Does the whole wilderness have to be paved?"

**AUDIENCE:** Junior high; senior high

## **EVERYMAN'S EMPIRE**

Color—Sound  
20 minutes

U. S. Department of Agriculture  
Free Loan

In 1891 the Government set aside parks and wilderness areas for public use. The empire referred to is the wilderness area of this country. It belongs to the people and the people are responsible for its well-being.

The film elaborates the value of the national forests to this country, with particular emphasis on the storage and distribution of water. The point is made that water under control may bring prosperity but that water out of control promises destruction. In 1911 the Government allocated funds for the study of watershed problems.

The part played by the national forests in the war effort is explained. Many jobs depend upon the national forests, particularly those connected with wood products. Range land is provided for livestock through grazing permits issued and carefully regulated by the government. The story of the national forests is a true-life story of conservation in practice. One-third of all wild animals are guests of our national forests. A definitive and eloquent film on the significance of the national forests.

**AUDIENCE:** Senior high; college; adult

## **QUETICO**

Color—Sound  
22 minutes

Contemporary Films, Inc.  
Rental—Sale

Using the very minimum of narration this film is dedicated to the proposition that one picture is worth ten thousand words. This is particularly fortunate in this instance because it tells a simple story about the virtues and significance of the wilderness area. Beginning with a solitary man, his canoe and a camping trip into the heart of the area, we see through his observant eyes and mute lips the early dawn, the glory of animals in their native habitat, the excitement of cooking out and the tranquility of the area.

Admittedly a special film and a film which depends greatly upon its mood value, the story nevertheless has point and pertinence today. The feeling of respect for nature comes across eloquently without words, and it is matched by the sensitive photography.

**AUDIENCE:** Junior high; senior high; college; adult

## **WILDERNESS ALPS OF STEHEKIN**

Color—Sound  
31 minutes

National Audubon Society  
Rental

A beautifully photographed and conceived motion picture with broad appeal to audiences interested in wilderness areas. The production has a kind of simplicity which is most effective, and meticulous technique helps to underline its most important theme, namely the need for preservation of wilderness. In this day and age people are too apt to forget the values of wilderness areas, and it is important that films of this type be distributed as widely and effectively as possible.

**AUDIENCE:** Elementary; junior high; senior high; college; adult

### **TEACHING CONSERVATION**

#### **CAMPING—A KEY TO CONSERVATION**

Color—Sound  
23 minutes

Indiana University A-V Center  
Sale

The rapidly expanding leisure time of the average American today makes camping and its attendant responsibilities highly important not only to the individual but to his environment. Using a thirteen-year-old boy as protagonist this film carefully and thoughtfully provides needed information as to the interrelationships in nature, to past abuse of the natural environment and details conservation practices which correct such abuse. The story concerns itself with an overnight summer camp group and the discovery step-by-step of the necessary information relating to making and breaking camp and the need to leave the natural surroundings undisturbed. It is this camping experience with a knowledgeable guide that leads the boy to impart some much needed advice to his elders.

**AUDIENCE:** Elementary; junior high

### **CONSERVATION VISTAS**

Color—Sound  
14 minutes

U. S. Department of Agriculture  
Free Loan

The teacher's answers to the problem of bringing the outdoors "in" are shown in this film. Open air classes and field trips help

introduce conservation to young students; primary grade activities stimulate curiosity, while the middle grades are active in projects like tree planting and surveying. Special wooded areas for this work are recommended, and several examples are shown. Most of the film's emphasis is laid on the forestry side of conservation.

AUDIENCE: Elementary; junior high

## OUTDOOR EDUCATION IN COOK COUNTY

Color—Sound  
28 minutes

Forest Preserve District of  
Cook County  
(Write for Information.)

A field trip by bus into the country surrounding Chicago is documented in this picture, which is intended as a guide for teachers in conservation-related fields. Various ways and means of interesting students in nature and conservation problems are suggested. Property maintained by the Chicago school system on a local lake is described in the film, and possibilities for schools in other areas are also mentioned.

## THE WINDOW

Color—Sound  
17 minutes

National Audubon Society  
Rental—Sale

A competent teacher can span the bridge between indoor textbook learning and the world of nature by actual field experience. This film illustrates the methods used by one elementary school teacher to add dimension to work in science, social studies, language and creative arts. With projects, activities, reports and active class participation she creates a truly new method of teaching natural resources and wildlife studies.

AUDIENCE: Junior high

COMMUNITY ACTION  
**FILMS FOR COMMUNITY ACTION**

**HANNAH WILLIAMS, Director**  
Riverdale Outdoor Laboratories  
Bronx, New York

When choosing films to serve varied groups and age levels in a community, there are sometimes a wide range of choices on each topic. The problem is to pick the right film for each audience within a community. Therefore, each film mentioned here has been classified A, B, or C. The A films are intended as a general introduction to a subject for use with groups where entertainment and quality of production may have a high priority. B films are also of high quality but may be more effective where the objective is to use the film as a springboard for discussion or a catalyst to action. C films are for the family audience for programs such as weekend presentations at nature centers, and considerable attention has been given to the elementary school level children in the audience.

For example, if there is an immediate community need to take action on preservation of one particular resource, such as a piece of threatened marshland, a community conservation council might well plan to coordinate a series of presentations on the same topic designed to fit the needs of the different audiences. These could include showing "World in a Marsh" to a family audience, "Between the Tides" to a garden club, "Marshland Is Not Wasteland" to a businessmen's group, and "Fish Out of Water" to high school students. These groups added together might create an informed community ready to protect its valuable marsh from exploitation as a garbage dump, an industrial complex, or a housing development when sites less valuable as natural areas are available.

Similar community programs might be built around water, air pollution control, or population.

**OPEN SPACE:**

"Marshland Is Not Wasteland" (p. 29)    A    B  
good photography, making strong case for value of marshland.

"World in a Marsh" (p. 38)    A    C  
beautiful presentation of drama of marsh life.

"Swamp" (p. 32)    A    B  
points out way in which urban developments may encroach on wildlife areas.

"Between the Tides" (p. 33)    A  
interesting introduction to tidal life.

**"Fish Out of Water"** (p. 8) A B

the story that research is untangling in tidal ecology with the grunion as protagonist.

**"Beach Hike"** (p. 44) A B C

This Justice Douglas film lends significance to the need for preserving wilderness areas.

**"We Share This Land"** (p. 15) A B

useful for understanding of the open space problem and its possible solution.

**"Life in the Woodlot"** (p. 34) A C

beautiful and nostalgic film of considerable significance for all ages.

## POLLUTION:

**"Water, Pattern of Life"** (p. 14) A B C

Water problems of the state of Ohio and its relationship to the equally important problem of open space make this film significant as an introduction to these related problems.

**"Water"** (p. 13) A B

Excellent animation presents the case for world cooperation on the water problem. Good background material on hydrologic cycle. Best for sophisticated audience.

**"Living Water Series"** (p. 10) A C

does similar job better for student audience.

**"Crisis on the Kanawha"** (p. 43) A B

a specific account of the cleanup of an American river.

**"How Our Town Saved the River"** (p. 44) A B

parochial but eloquent account in definitive terms of what one town accomplished.

**"Control of Air Pollution"** (p. 42) A B C

**"Effects of Air Pollution"**

**"Sources of Air Pollution"**

a short and dramatic account in three five-minute films of the rapidly growing problem of air pollution.

**"Air Pollution—Everybody's Business"** (p. 25) A B

an industrial point of view. Worthy of discussion.

## **POPULATION:**

- “The Pond and the City” (p. 31) A  
lively, vivid color imagery in plea for space and the maintenance of the quality of living.
- “The City and the Future” (p. 26) A B  
a straight forward adequate plea for saving the best qualities of the city.
- “Our Changing Environment” (p. 30) B  
particular emphasis on the value obtained by planning.
- “The Squeeze” (p. 32) B  
a hard-hitting, controversial illumination of what the population explosion means in human terms.
- “Population Ecology” (p. 36) A B  
a definitive introduction to the significance of ecology and its relation to human populations today.

**PART II**  
**FILMS AND FILMSTRIPS SELECTED BY**  
**THREE TEACHERS**

**MY LIST OF  
EFFECTIVE FILMS ON CONSERVATION  
OF PARTICULAR INTEREST  
TO THE  
JUNIOR HIGH SCHOOL**

**PHYLLIS S. BUSCH**

Consultant, Bureau of Curriculum and Research  
New Jersey State Department of Education

**A IS FOR ATOM**

Color—Sound;                           U. S. Atomic Energy Commission  
Animation                                 Free Loan  
15 minutes

This presents a very clear explanation of how energy results from nuclear fission. The peaceful uses of atomic energy in health and industry are demonstrated. This is timely since atomic energy plants for peaceful uses are now being constructed. The film also indicates the dangerous potential of nuclear energy. Since more and more nations are continuing to develop nuclear bombs, children must understand the perils of this tremendous force which can be created by man.

**FOOD OR FAMINE**

Color—Sound                           Shell Oil Company  
27 minutes                             Free Loan

If everything proceeds at today's rate, famine, now prevalent in one-half the world, will spread drastically in the next twenty years. The film shows the dreadful starvation which exists in a number of places and the human misery which results, unknown to young

people in this country. Repeatedly, a "declaration of war" on insects to demonstrate the need for chemical spraying is emphasized.

The film acknowledges the work of the Food and Agricultural Organization of the United Nations. This type of cooperation should be pointed out. So should the problem of population explosion and the possibility of controlling insects by a variety of means, be introduced.

## OUR CHANGING ENVIRONMENT

Color—Sound  
17 minutes

Encyclopaedia Britannica Films, Inc.  
Rental—Sale

This is probably one of the most important films for a young person to see. Few children recognize how dependent all people are upon the resources from the soil. Here is a logical and beautifully made film explaining the aspects of city living and tracing the history of man's urbanization, showing how the complexities of city development increased the problems facing all of us today. It explains the meaning of urban sprawl, suburban slums, the development of a megalopolis. Perhaps one of the finest and most inspirational parts of the film is the way it develops that we are part of a biosphere no matter where we live, and polluting it just undermines our existence. In the face of rapid changes hopeful ideas are suggested. The urgency that something can be done but we must hurry is a very important idea to instill in the young, just as we must repeat it for the older people. We must try to help students understand how powerful and dangerous man really is.

## THE PERSISTENT SEED

Color—Sound (no narration)  
14 minutes

Henk Newenhouse, Inc.  
Rental—Sale

This film fits in very well with our present ideas concerning the importance of creativity in teaching. For best results it should be shown twice. First, the pupils may simply be advised that they are to see a film about the world we live in. Ask them to note what they like about it and what is objectionable; what is happening to living things and what is happening to non-living things for this is the substance of the film.

After the film have the pupils find out what their classmates interpreted by forming a number of small discussion groups. A general class discussion followed by a second showing could be a revelation of the depth of perception of which young people are capable. This should be an exciting way to motivate a unit on conservation in a science class or in a social studies class.

## THE SEA

Color—Sound  
26 minutes

Encyclopaedia Britannica Films, Inc.  
Rental—Sale

This film could be a magic door to young people. They will be hard to convince that such marvels of life exist in the ocean. The film is an excellent portrayal of the ocean as an ecological area, the myriad of animals, their problems in survival. Most of all it is excellent as an introduction to the exciting kinds of adventure which research in the ocean makes possible. Except for a few words which may need explaining, the best age to show this film the first time is at the junior high school level when imagination is so easily fired. It definitely bears repetition in courses of biology, ecology, oceanography, etc. This is an exceptionally beautiful film.

## POPULATION ECOLOGY

Color—Sound  
21 minutes

Encyclopaedia Britannica Films, Inc.  
Rental—Sale

What causes a population of fruit flies, mice, rabbits, or any living animal to increase, level off, then decline? This is well presented with a graph superimposed on the film to clarify the idea and to add drama. The human population curve is seen to be markedly different today from what it was in primitive times when it was similar to that of other animals. This change, following the agricultural revolution in the history of mankind, is due to man's control over his environment. What man has done, what the effects of overpopulation are, and what man can do about the future is the overall theme. This film is very stimulating and should result in considerable social studies reading research as well as lead to some excellent biology investigations.

## WATER

Color—Sound;  
Animation  
15 minutes

Center for Mass Communication  
Contemporary Films  
Rental—Sale

The important facts about water are here spelled out; literally, at the beginning, in many languages—then figuratively. This is a very artistic approach to the problem of water in all our lives.

In order to get the most out of the film the following questions might be used as guidelines for this is the substance of the film:  
1) What are the many uses of water? 2) Why is the amount of water which is being used constantly increasing? 3) Why is there a world water shortage? 4) Why do floods occur (with a concomitant loss of water)? 5) What can be done to prevent water waste? 6) How can world cooperation help to regulate the earth's water supply?

## THE WEB OF LIFE SERIES

Color—Sound

2 parts;

30 minutes complete

Encyclopaedia Britannica Films

Rental—Sale

Today evolution is considered an on-going process rather than a static accomplished set of activities. This film, in reel one, emphasizes this point as it shows that unless living things can adapt themselves to constant change, they must perish. This adaptation results in the many forms of life which exist and are constantly developing. The balance of life within which an organism exists is shown to be very delicate and it is understood to be applicable to all forms of living things, although plant life is used for emphasis in this film.

Reel two brings to our attention the extent of damage which can result from man's interference with the balance of nature. Some of the problems, with some ideas of solving them, are introduced, such as poor forest utilization, overgrazing, indiscriminate slaughter of predators. The film also makes us aware of possible problems resulting from our population explosion.

## WHAT IS ECOLOGY?

Color—Sound

11 minutes

Encyclopaedia Britannica Films

Rental—Sale

Since ecology, if understood, leads to an appreciation of conservation, this is an important and fundamental film. In advance, children should understand all the terms which are used, such as scavengers, decomposers, community, aggregation, biome, etc.

With this knowledge they can be directed to look for how a lack of knowledge caused the catastrophes depicted—loss of a farm, floods, dust storms, etc. They can then understand how a knowledge of ecology could have prevented the tragedies. They may even be able to supply the exact knowledge in some of the cases.

Certain concepts such as change, community interaction, the sun as the prime source of energy are particularly well explained.

## YOURS IS THE LAND

Color—Sound  
19 minutes

Encyclopaedia Britannica Films  
Rental—Sale

There is much sound conservation education in this film provided the teacher gives it careful initial direction. The film should be preceded with a lesson on the terms "succession" and "balance of nature". To guide the pupils three questions can be given to them: (1) What is the condition of our planet, Earth, today? (2) How did it get this way? (3) What can we do now?

The substance of this excellent film is an answer to these three questions and forms a good introduction or summary to the state of our land, and how man's indifference and ignorance led to existing conditions. Emphasis on knowledge and everyone's responsibility for improving our legacy makes this an important film.

## MY LIST OF EFFECTIVE FILMS ON CONSERVATION

EDWARD VICTOR

Professor of Science Education  
Northwestern University

### *Conserving Our Soil Today*

Color and Black & White—Sound  
11 minutes

Coronet Films  
Rental—Sale

Emphasizes the dependence of man upon products of the soil and describes the common methods used to conserve the soil. The film also describes more recent techniques and experiments in soil conservation, such as the use of plastic sheets to retain moisture, subsoil mulching, new fertilizers, and experiments with artificial rain to determine patterns of soil erosion.

### *Conserving Our Water Resources Today*

Color and Black & White—Sound  
11 minutes

Coronet Films  
Rental—Sale

Points out how both the population explosion and expanding industrialization have contributed to make water our most precious resource today. The film describes the domestic, agricultural, and industrial uses of water, diagrams the water cycle, and indicates

our major sources of water. It also shows the methods for conserving surface and ground water, as well as for reclaiming and purifying water, in order to avoid future shortages.

*Everyman's Empire*

Color—Sound  
20 minutes

U. S. Department of Agriculture  
Free Loan

Presents our National Forests and their benefits to the nation. Gives their value in preserving watersheds and soil, for timber and range land conservation, for preserving wildlife, and for recreation of all kinds. Excellent photography.

*Forest Conservation (Part III of The Living Forest Series)*

Color—Sound  
11 minutes

Encyclopaedia Britannica Films)  
Rental—Sale

Treats timber as a crop. Describes the effects of mismanaging the timber supply. Such effects include shrinking of forest resource, soil erosion, and silt-filled reservoirs. Emphasizes the advantages of conserving timber supply.

*Man's Problem (Part II of The Living Water Series)*

Color—Sound  
20 minutes

Encyclopaedia Britannica Films  
Rental—Sale

Describes the serious problems man encounters in the use, care, and protection of his fresh water supply. It calls attention to the incredible amounts of clean water that man needs in his modern industrial civilization, and it shows what the city of Los Angeles has had to do in order to meet the ever-growing demand for more water. The film illustrates some of the problems engendered when big dams are created. It shows how destructive a river in flood can become and describes some of the causes for such a condition. Finally, the film discusses water pollution and describes both natural and artificial methods for purifying foul water.

*Marsh Waters—Waste or Wealth*

Color—Sound  
15 minutes

University of Minnesota  
Rental

Excellent discussion of the problems of marshes, the values gained both by draining them and by maintaining them as marshes. Also shows the surface water problem as seen through the eyes of

fire wardens, flood relief workers, trappers, fowl hunters, geologists, nature lovers, and land owners. Good photography.

#### *Red 14*

Color—Sound                    Wisconsin Conservation Department  
28 minutes                    Sale

A fine presentation of game management. Shows the importance of conserving our game. Presents many scenes of various game research projects. Excellent photography includes fine wildlife shots.

#### *Soil Conservation Series*

Black & White—Sound                    U. S. Department of Agriculture  
Four parts;                                    Free Loan  
10 minutes each

Divided into: (1) Erosion, (2) Soil and Water Conservation, (3) Topsoil, and (4) Water. Distinguishes between natural and man-made soil erosion and how man-made erosion has affected the production in our land. Shows the value of conservation farming methods and of proper land use. Describes in detail the importance of topsoil. Enumerates the value of water and what water can do when it is uncontrolled. A good basic film tieing up soil and water.

#### *Then It Happened*

Color—Sound                            U. S. Department of Agriculture  
10 minutes                                    Free Loan

A graphic, dramatic and tragic documentary of the Maine forest fire of 1947. Emphasizes the need for forest fire prevention and for adequate forest fire fighting everywhere. I shall never forget one statement made in the film: "A forest fire is no respecter of human rights, property, or emotions." Excellent photography.

#### *Yours Is the Land*

Color—Sound                            Encyclopaedia Britannica Films  
20 minutes                                    Rental—Sale

Describes four renewable resources of nature: soil, water, forests and plant and animal life. Shows some of the ways these resources were formed, and their interdependence. Portrays what happens when man takes too much from the earth in too short a time. Emphasizes the need for conserving these natural resources and managing them in an orderly manner.

# **MY LIST OF EFFECTIVE FILMSTRIPS ON CONSERVATION**

**IRENE CYPHER**

Associate Professor of Education  
New York University

## **CONSERVATION FOR BEGINNERS SERIES**

<b>Color</b>	<b>Society for Visual Education</b>
About 30 frames each	Sale

Appreciation of what conservation means begins in the primary grades, and these stories highlight the facts of major importance in understanding just what is included in any consideration of conservation problems.

### **SONNY SQUIRREL AND THE PINE TREES**

Destruction of forest trees can mean loss of food and home to our animal friends. This can be avoided if we learn how to cut trees as needed, without totally destroying areas needed if animal life is to continue.

### **THE DEER AND THE HAYSTACK**

Winter hardships force the deer to turn to man for food and care. Man must, therefore, take steps to protect animal life during periods of seasonal change and lack.

### **A PICNIC FOR DICK AND HIS FRIENDS**

Here we see how important it is for everyone to follow safety rules for forest preservation, to clean up after picnics, and to observe all safety regulations.

### **THE LAMP AND THE BLUEBELL**

Soil erosion can mean loss of food for sheep and other animals who graze on our hillsides. We must see to it that our hills are cared for, and soil provided to hold vegetation necessary for animal food.

### **SUSAN AND THE FOREST FIRE**

One little girl watches a forest fire—and learns about the rules we must observe if such fires are to be prevented. A good story about a basic situation faced in forest conservation.

### **THE MUDDY RAINDROPS**

Water is necessary for plant growth—but too much water can wash away precious soil. This time we are introduced to methods of controlling and preventing erosion by water.

**AUDIENCE:** Specifically designed for grades 1 to 3

# **CONSERVATION FOR TODAY'S**

## **AMERICA SERIES**

Color—Sound  
(33½ r.p.m. records)  
About 35 frames each

Society for Visual Education  
Sale

Deals with the basic problems encountered in conservation of natural resources. Also gives an added strength to the presentation by pointing to the fact that conservation means preservation of both Urban and Land Resources. Narration on records, plus script.

### **SOIL CONSERVATION TODAY**

Soil conservation is essential for conservation of both plant and animal life. Included in this story is the place of minerals and their importance to good soil.

### **WATER CONSERVATION TODAY**

Modern living makes increased demands on our water supply, and we must learn how to use water resources if we are to avoid both droughts and water pollution.

### **FOREST CONSERVATION TODAY**

Forests supply us with lumber and with an environment for wildlife. We must avoid depletion of forest resources for economic reasons and also for purposes of protecting our great national park areas.

### **WILDLIFE CONSERVATION TODAY**

If we are to continue to have wildlife in our forests we must learn how best to protect it from depletion by man and by natural causes. Gives good illustrations of the importance of animal life in our national parks.

### **MINERAL CONSERVATION TODAY**

Many valuable minerals have already been extracted from the earth for trade purposes. If these same minerals are to be retained in the soil, measures must be taken to conserve supplies or to find substitutes.

### **URBAN CONSERVATION TODAY**

Cities are a resources—but only if properly planned to provide adequate areas for housing, recreation, business and industry. City planning for better living is essential to better human living conditions.

## **LAND CONSERVATION TODAY**

Shifting populations have resulted in changes in both urban and rural areas. If future developments are to be adequate for today's needs, there must be planning for both urban and rural centers. Proper use of all land areas is a major problem of any conservation program.

**AUDIENCE:** Grades 6 through 12

## **CONSERVATION IS EVERYBODY'S BUSINESS SERIES**

Color

McGraw-Hill Book Company

About 52 frames each

Sale

Stresses the fact that each citizen has a share in conserving our natural resources. These same resources, in turn, affect the life of each citizen.

### **SAVING THE SOIL**

Without soil, man, plants and animals would not be able to exist. A good description of why soil erosion must be controlled, and the vital need for proper care of soil if life is to continue to exist on this earth.

### **USING OUR FORESTS WISELY**

For many years man cut forest timber without giving thought to the fact that it might disappear. Reforestation and modern methods of replenishing forest growths is a matter which affects all of us.

### **PEOPLE, OUR MOST VALUABLE RESOURCE**

Natural resources are important to the maintenance of man's life; and man is the most important of living things. If he is to be healthy, he must be supplied with food and nourishment. Thus the inter-relationship of man, plants, and animals must be studied if all are to continue to exist and function.

**AUDIENCE:** Middle and upper elementary; junior high; senior high

## **CONSERVATION OF PLANTS AND ANIMALS**

Color

Filmstrip-of-the-Month Club

35 frames

Sale

(A single filmstrip, unit of the "High School Science Club"; also included in the General Science Series, Set No. 2, produced by McGraw-Hill Book Company.)

Deals with the place of plants and animals in our lives, and shows why it is important for us to take steps to conserve these resources. Plants contribute much to man's personal happiness and to his well-being. Animals depend on plants for sustenance. Conservation of both is necessary.

AUDIENCE: Junior high; high school

## CONSERVATION FILM STRIPS

Color	Encyclopaedia Britannica Films, Inc.
About 34 frames	Sale

A focus on the problems of Supply, Demand, and Balance. Specific attention is devoted to how to present these problems to pupils in the elementary grades, in the junior high school and in the senior high school. In each instance the basic problems considered are the same, but the presentation is suited to curriculum and learning needs of the particular grade group for whom the unit is intended. Produced in collaboration with The Conservation Foundation.

### NATURAL RESOURCES AND YOU (Middle elementary grades—3 strips)

Here we are introduced to definitions of demand, supply and balance. The pupil is shown what we mean by natural resources, where they are to be found and why they are needed.

### USING NATURAL RESOURCES (Junior high school—3 strips)

The problems of supply, demand and balance are illustrated in relation to existing sources of natural wealth. Again we are given an opportunity to see why man needs these resources; and the student is led to question and find answers to understanding the problems under consideration.

### SCIENCE AND NATURAL RESOURCES (Senior high school—3 strips)

Here the questions raised are can the biologist, chemist and physicist help man to renew supply, meet demand and strike a balance? Natural resources are an integral part of life and growth, and the modern pattern of life depends on these resources. It is important for all students to gain some concept of this and understand the place of conservation in his own life and the life of all peoples.

# **CONSERVING OUR NATURAL RESOURCES**

**Color** Encyclopaedia Britannica Films, Inc.  
**About 45 frames each** Sale

Devoted to a consideration of what we face today with regard to renewable and non-renewable resources. Good photographic field studies showing how valuable resources have been depleted, and what steps must be taken if man is to continue to have such resources.

## WHAT IS CONSERVATION?

A definition of terms and an explanation of what conservation means to the average man.

## SAVING OUR SOIL

Shows how important soil is to many activities and to life on this earth.

# ENOUGH WATER FOR EVERYONE

Water, and the lack of water, has influenced economic development and human life. World affairs today necessitate greater consideration of how to provide adequate water supply.

## IMPROVING OUR GRASSLANDS

Food for man, for birds, and for animals is dependent on grass-land area. If they are depleted, then much of our present life will be affected.

# USING OUR FORESTS WISELY

Forests are a source of wealth, pleasure and economic welfare. It is of prime importance that forests be protected, for it is not easy to replenish this source of supply for man and animals.

# GIVING OUR WILDLIFE A CHANCE

If wildlife is destroyed, man has lost one of his most priceless natural resources. There is urgent need to consider what steps to take to provide bird sanctuaries and other types of protection for all forms of wildlife.

## USING OUR MINERALS WISELY

Modern life is dependent on mineral resources. Therefore future progress will necessitate attention to the source of power and wealth, if continued progress is to be made.

**AUDIENCE:** Junior high; senior high; college

# **CONSERVING OUR RESOURCES SERIES**

**Black & White**

**About 30 frames each**

**Curriculum Materials Corp.**

**Sale**

Emphasis is placed in this series on the importance of all natural resources to modern man and life today.

## **THE FIELD DAY**

Details of how modern farming has been affected by improvement of methods of farming, new ways of improving water and soil.

## **NATURE COOPERATES WITH MAN**

Again our attention is directed to how conservation has affected methods of farming, woodlot use, building of farm units, control of soil resources.

## **SOIL RESOURCES**

Presents details of how soil is formed, what soil erosion has meant to men in all parts of the world, and why it is essential to provide for soil preservation.

## **WATER RESOURCES**

Water supply, water pollution and flood control are all included in this strip. The problems are interrelated and must be studied carefully for proper control of water resources everywhere.

## **FOREST RESOURCES**

Forests are a source of lumber wealth, animal life and plant life. Forests are an important part of life in all its forms; and we must learn how to conserve a resource that is difficult to replace.

## **WILDLIFE RESOURCES**

These resources have already been depleted in many parts of the world. There is need for well designed programs of wildlife conservation and management.

## **MINERAL RESOURCES**

Calls attention to the minerals which we must import to carry on many of the activities and industries of our own country. Stresses the future importance of mineral wealth and conservation of native sources of supply.

## **HUMAN RESOURCES**

We are beginning to realize today that people are a resource—one which must be provided with a healthful atmosphere and environment for living.

**AUDIENCE:** Junior high; senior high; college; adult

## **CONSERVING OUR SOIL AND WATER**

Color	Filmstrip-of-the-Month Club
35 frames	Sale

(A single film strip, unit of the "High School Science Club"; also included in General Science Series, Set No. 1, produced by McGraw-Hill Book Company.)

Deals with the basic factors to be considered for a program designed to conserve our soil and water resources. Indicates the importance of both soil and water to all forms of life on this earth; also shows the necessity for conserving these resources if man is to live a safe, healthy life.

**AUDIENCE:** Junior high; senior high

## **INTERDEPENDENCE OF LIVING THINGS SERIES**

Color	McGraw-Hill Book Company
About 40 frames each	Sale

Illustrates the ecological principles basic to good conservation practices and explains the importance of maintaining a balance of resources available to meet needs of things living on this earth.

### **INTRODUCTION TO ECOLOGY**

First of the series, this particular strip actually serves to introduce us to terminology and principles.

### **THE WEB OF LIFE**

Here we see how environment determines patterns and types of life, and controls growth of living things.

### **ANIMAL AND PLANT COMMUNITIES: FORESTS**

This and the three following titles deal with specific ecological principles as we see them in different areas. In this particular strip we deal with forest life and conditions related to ecological conditions affecting forest development.

## **ANIMAL AND PLANT COMMUNITIES: FIELD**

Field life offers many examples of interrelationships of growing things. Grasses, birds, animals are dependent for their growth on good soil, grains and seeds, and water.

## **ANIMAL AND PLANT COMMUNITIES: POND**

Pond life offers much to watch, from the early days of spring to late winter. Again each form of life is dependent on another, and the cycle of life is seen repeating through the seasons.

## **ANIMAL AND PLANT COMMUNITIES: CITY**

It is important to human welfare and life in our cities that provision be made for continuance of plant and animal life. Again we see the web of interrelationships, and the necessity for conserving all resources.

**AUDIENCE:** Junior high; senior high

## **LIVING THINGS SERIES**

Color	Moody Institute of Science
About 35 frames	Sale

Series designed to indicate specific relationships to be found in a study of life forces on our earth.

## **HOW DOES A GARDEN GROW?**

Deals directly with the dependence of living things on green plants. Indicates why a good supply of light and water are needed and why they should be conserved.

## **LIFE IN A PASTURE**

Indicates interrelationships found between plants and bacteria. Show importance of clover, honey bees and earthworms for good productive pastures.

## **MINIATURE PLANTS OF THE DESERT**

Many growing things found in our dry deserts have a struggle to survive the rigors of such arid terrain. Something is known of how they are adapted to life in the desert, but scientists are still working to discover the full story of how to assure conservation of desert plant life.

**AUDIENCE:** Upper elementary; junior high; senior high; college; adult

## **OUR NATURAL RESOURCES SERIES**

Color

About 35 frames each

Filmstrip House

Sale

Conservation as we know it today includes consideration of natural resources, human resources, and the products of man's industry. This series deals with interrelationships to be found between the natural and the man-made resources.

### **F FARMS AND FORESTS**

Here we see the age-old problems encountered in the preservation of soil, enrichment of soil to insure better production. Again we find that many natural resources, such as forests, have been thoughtlessly destroyed. It is essential to plan for better use of all resources.

### **MINERALS**

For many years many minerals have been extracted from the earth with little thought as to what this might mean to quality of soil, loss of mineral deposits. There are some mineral substitutes which can be put back into the soil, but we must not let the great mineral resources be completely destroyed.

### **WATER**

Man, plants, animals—all depend on water for continued existence. Water can also be a destroying force. So we see the need to learn to control water, to maintain water supplies free of pollution and adequate for the maintenance of all forms of life.

### **MANUFACTURING**

If man is to live, he must be able to work, and to have resources with the materials needed for the conduct of various businesses and industries. These resources, too, must be supplied and maintained if our economic standards are to be adequate for the support of our human population.

### **TRANSPORTATION**

If we are to keep our economic system in operation, there must be provision for transporting man and goods from place to place. This means that thought must be given to preservation of natural avenues for transportation to follow.

### **SKILLS AND TALENTS**

It is interesting to note in this strip that consideration is given to new ways and means of finding substitutes for some resources that have been depleted, or are scarce. A good strip to point to the value of research in the field of conservation.

**AUDIENCE:** Upper elementary; junior high; senior high

# **SOIL CONSERVATION SERIES**

Black & White              Encyclopaedia Britannica Films, Inc.  
About 60 frames each      Sale

This series is devoted specifically to the problem of soil—how it is formed, why it is important to life on this earth, how it has been used and why attention should be given at this time to the conservation of soil. Produced in cooperation with the Conservation Foundation and the U. S. Department of Agriculture Soil Conservation Research. It is particularly good for detailed study of soil and its importance to agriculture.

## **HOW LONG WILL IT LAST**

Focuses attention directly on the problem of soil and the need for conserving this vital resource.

## **HOW SOIL IS FORMED**

Gives detailed information as to elements forming different types of soil.

## **PLANT LIFE AND THE SOIL**

Shows how necessary soil is to all plant growth and illustrates why care should be given to providing proper soil for various types of plants.

## **WATER AND THE SOIL**

Deals with the problem of adequate water supply to provide good productive soil, harmful effects of oversupply of water, and the control of both water and soil resources.

## **ANIMAL LIFE AND THE SOIL**

Animals are dependent on soil and the products growing in soil. Animal life must turn to the soil for food.

## **MINERALS IN THE SOIL**

Important minerals are found in different types of soil. Both economic and human life depend on these minerals. Soil must be cared for if mineral content is to be adequate for all needs.

## **HOW MAN HAS USED THE SOIL**

Presents the story of how man has used and abused the soil, and what this has meant to our pattern of life.

## **HOW MAN CONSERVES THE SOIL**

Shows what steps must be taken if soil is to be adequate for modern life. Indicates ways by which man can assure a proper program of soil care and utilization.

**AUDIENCE:** Junior high; senior high; college and adult study programs in agriculture

## **THE CONSERVATION OF OUR RESOURCES**

Color	Eye Gate House, Inc.
About 34 frames each	Sale

A series devoted to a consideration of the basic units relating to work in conservation. Adapted to general study of the problems encountered in any study of natural resources and their place in our pattern of life.

### **THIS LAND IS OURS**

Man lives on the land, and it will serve him only if he gives proper attention to replenishing depleted soils, caring for natural resources and preserving natural wealth, animal and plant life.

### **THE WASTE OF OUR RESOURCES**

Many resources are already expended, due to careless use because no planned program of conservation has been followed.

### **THE NEED FOR CONSERVATION**

Plants, animals and man share a need for natural resources; countries throughout the world need to share their resources. Everything points to a need for conservation if progress is to be made in standards of living and preservation of vital resources.

### **WATER AND ITS CONSERVATION**

Deals with the specific need for water in all parts of the world and by all forms of life.

### **SOIL AND ITS CONSERVATION**

Introduces us to a consideration of what soil means to plants, animals and man.

### **THE CONSERVATION OF OUR FORESTS**

The most difficult resource to replace is forests—here we see what forest wealth means to plants, animals and man.

### **THE CONSERVATION OF WILDLIFE**

Bird and animal sanctuaries are needed more than ever today if many of our wildlife resources are to be preserved.

## **THE CONSERVATION OF MINERALS**

Minerals are essential to so much of our modern research and industry that the conservation of these resources has become a very vital part of the overall program of conservation.

## **THE CONSERVATION OF HUMAN RESOURCES**

Human life has great value—and we are learning to give greater consideration to the needs of people everywhere.

AUDIENCE: Intermediate grades; junior high

## **THE FOREST COMMUNITY SERIES**

Color	McGraw-Hill Book Company
About 50 frames each	Sale

A good series to give an overall picture of interrelationships between animals and plants and their environment.

### **THE SOIL**

Shows how soil is made by weathering factors and how only soil can hold the roots of trees and other plant life.

### **WHERE TREES GROW**

Trees adapt to climatic conditions affecting their growth. The relation between terrain, temperature and precipitation is shown.

### **HOW TREES GROW**

Illustrates the process of photosynthesis. Gives a good picture of how trees store energy and how leaves change color.

### **FOREST, PLANT AND ANIMAL RELATIONSHIPS**

Basically this strip deals with trees as a source of the food supply of the forest. In addition there is a discussion of food chains and the parasites which depend on green plant life.

### **ENEMIES OF THE FOREST**

Insects, fire and disease are the major enemies of a forest. Man must become familiar with ways of controlling these in order to prevent damage to our forest resources.

### **FORESTS FOR THE FUTURE**

Only scientific management and tree planting can control forest waste. A plea for the preservation of private and public forest areas so forest wealth can exist in years to come.

AUDIENCE: Junior high; senior high

### PART III

## NAMES AND ADDRESSES OF DISTRIBUTORS FILM DISTRIBUTORS

### A

American Motors  
Route 22, P.O. Box 4  
Union, New Jersey

American Petroleum Institute  
50 West 50th Street  
New York, New York 10020

Association Films  
347 Madison Avenue  
New York, New York 10017  
Eastern Area Exchange  
Broad at Elm  
Ridgefield, New Jersey  
Midwestern Area Exchange  
561 Hillgrove Avenue  
La Grange, Illinois  
Western Area Exchange  
799 Stevenson Street  
San Francisco 3, Calif.  
Southwestern Area Exchange  
1108 Jackson Street  
Dallas 2, Texas

### B

Bailey Films, Inc.  
6509 De Longpre Avenue  
Hollywood, California 90028

### C

Center for Mass Communication  
Columbia University Press  
1125 Amsterdam Avenue  
New York, New York 10025

Churchill Films  
662 North Robertson Boulevard  
Los Angeles, California 90069

Contemporary Films, Inc.  
267 West 25th Street  
New York, New York 10001  
Midwestern Branch Office  
614 Davis Street  
Evanston, Illinois

Coronet Films  
Sales Department  
Coronet Building  
Chicago 1, Illinois

A list of rental sources may be obtained from the main office in Chicago

### D

DuArt Film Laboratories, Inc.  
245 West 55th Street  
New York, New York 10019

### E

Encyclopaedia Britannica Films, Inc.  
Rental and Purchase Libraries  
1150 Wilmette Avenue  
Wilmette, Illinois  
38 West 32nd Street  
New York, N.Y. 10001  
1414 Dragon Street  
Dallas 2, Texas  
5625 Hollywood Boulevard  
Hollywood 28, California  
277 Pharr Road, N.E.  
Atlanta 5, Georgia

### F

Film Associates of California  
10521 Santa Monica Boulevard  
Los Angeles 25, California

Forest Preserve District, Cook County  
536 North Harlem Avenue  
River Forest, Illinois

### G

Geological Survey  
Attention: MIO  
Department of the Interior  
Washington 25, D.C.

## H

Henk Newenhouse  
1017 Longaker Road  
Northbrook, Illinois 60062

Hilary Harris Films, Inc.  
49A Eighth Avenue  
New York, New York 10014

Horizons of Science  
Educational Testing Service  
Princeton, New Jersey

## I

Indiana University A-V Center  
Bloomington, Indiana

International Film Bureau  
332 South Michigan Avenue  
Chicago 4, Illinois

## K

Kaiser Steel Corporation  
Kaiser Center  
300 Lakeside Drive  
Oakland 12, California

Ken Middleham Productions  
P.O. Box 1065  
Riverside, California

## M

McGraw-Hill Book Company  
Text-Film Department  
330 West 42nd Street  
New York, New York 10018

Missouri Conservation  
Commission  
Jefferson City, Missouri

Modern Talking Picture Service  
3 East 54th Street  
New York, New York 10022

Moody Institute of Science  
11428 Santa Monica Boulevard  
Los Angeles 25, California

Motion Picture Production  
University of California Ext.  
Berkeley, California

M. P. O. Productions, Inc.  
15 East 53rd Street  
New York, New York 10022

## N

National Audubon Society  
1130 Fifth Avenue  
New York, New York 10028

National Film Board of Canada  
680 Fifth Avenue  
New York, New York 10019

### For Sale

Inquire from National Film  
Board

### For Rental

Contemporary Films  
Wm. M. Dennis Film  
Libraries  
International Film Bureau

Northern Films  
Box 98, Main Office Station  
Seattle 11, Washington

## O

Ohio Dept. of Nat. Resources  
Information and Education  
Section

1106 Ohio Depts. Bldg.  
Columbus, Ohio 43215

Ohio Water Commission  
Columbus, Ohio

## P

Portland Cement Association  
Conservation Bureau  
33 West Grand Avenue  
Chicago 10, Illinois

## R

Roy Wilcox Productions  
Allen Hill  
Meriden, Connecticut

## S

Shell Oil Company  
Public Relations Department  
50 West 50th Street  
New York, New York 10020

Sterling Educational Films, Inc.  
241 East 34th Street  
New York, New York 10016

Stuart Finley  
6926 Mansfield Road  
Falls Church, Virginia

**T**

Tenn. State Fish & Game Comm.  
Audio-Visual Section  
1600 Lock Road, White's Creek  
Pike  
Nashville 7, Tennessee

The Texas Company  
135 East 42nd Street  
New York, New York 10017

**U**

U.S. Atomic Energy Commission  
Public Information Service  
70 Columbus Avenue  
New York, New York 10023

U. S. Bureau of Mines  
Central Exp. Sta.  
Graphic Services Section  
4800 Forbes Street  
Pittsburgh 13, Pa.

U. S. Department of Agriculture  
Motion Picture Service  
Washington 25, D. C.

For Sale

Inquire from U. S. D. A.

For Rental

Land Grant Colleges and  
Film Libraries, p. . . .

U. S. Department of the Interior  
Washington 25, D.C.

U. S. Public Health Service  
Attention: National Medical  
    Audiovisual Facility  
Communicable Disease Center  
Atlanta, Georgia 30333

United World Films, Inc.

Education Division  
221 Park Avenue South  
New York, New York 10003

Branch Libraries

287 Techwood Drive, N.W.  
Atlanta, Georgia 30318  
542 South Dearborn Street  
Chicago, Illinois 60605  
2227 Bryan Street  
Dallas, Texas 75201  
7374 Melrose Avenue  
Los Angeles, Calif. 90046  
5023 N.E. Sand Boulevard  
Portland, Oregon 97213

University of California Ext.  
Educational Films Sales  
Berkeley, Calif. 94720

University of Minnesota  
Audio-Visual Education Service  
Wesbrook Hall  
Minneapolis 14, Minnesota

**W**

Western Electric Co., Inc.  
195 Broadway  
New York, New York 10007

William Dennis Film Libraries  
2506½ West Seventh Street  
Los Angeles 57, Calif.

Wisconsin Conservation Dept.  
Film Library  
Madison, Wisconsin

## FILMSTRIP DISTRIBUTORS

### B

Bureau of Reclamation  
U. S. Department of the Interior  
Washington 25, D. C.

### C

Curriculum Materials Corp.  
1319 Vine Street  
Philadelphia, Pennsylvania

### E

Encyclopaedia Britannica Films  
Rental and Purchase Libraries  
1150 Wilmette Avenue  
Wilmette, Illinois

Eye Gate House, Inc.  
146-01 Archer Avenue  
Jamaica 35, Queens, New York

### F

Filmstrip House  
432 Park Avenue South  
New York, New York 10016

Filmstrip-of-the-Month Club  
355 Lexington Avenue  
New York, New York 10017

### H

Harcourt, Brace & World, Inc.  
757 Third Avenue  
New York, New York 10017

### M

McGraw-Hill Book Company  
Text-Film Department  
330 West 42nd Street  
New York, New York 10018

Moody Institute of Science  
11428 Santa Monica Boulevard  
Los Angeles 25, California

### S

Society for Visual Education  
1345 Diversey Parkway  
Chicago 14, Illinois

Stanley Bowmar Co., Inc.  
12 Cleveland Street  
Valhalla, New York 10595

### U

United World Films, Inc.  
Education Division  
221 Park Avenue South  
New York, New York 10003

# UNITED STATES DEPARTMENT OF AGRICULTURE AREA FILM RENTAL LIBRARIES

The following libraries should be very useful for teachers at all levels. Most of them have prints of hard-to-find films. All of them rent films for minimal fees, cooperate with the U.S. Department of Agriculture Motion Picture Service, and will be glad to send lists of available films upon request.

Alabama	Delaware
Extension Service	Department of Rural
Auburn University	Communications
Auburn	University of Delaware
	Newark
Alaska	District of Columbia
Extension Service	D. C. Public Library
University of Alaska	Washington 4
College	
Arizona	Florida
Bureau of Audio-Visual	Agricultural Ext. Service
Services	University of Florida
University of Arizona	Gainesville
Tucson 25	
Arkansas	Georgia
Arkansas State Teachers	Ga. Agrl. Extension Service
College	Athens
Conway	Film Library
Extension Service	Center for Continuing
P. O. Box 391	Education
Little Rock	University of Georgia
	Athens
California	Hawaii
Extension Division	Extension Service
University of California	University of Hawaii
Berkeley 4	Honolulu 14
Colorado	Idaho
Bureau of Audio-Visual	Extension Service
Instruction	317 ½ North 8th Street
University of Colorado	Boise
Boulder	
Visual Aids Service	Illinois
Colorado State University	Visual Aids Service
Fort Collins	University of Illinois
	Champaign
Connecticut	Indiana
Audio-Visual Center	Audio-Visual Center
University of Connecticut	Indiana University
Storrs	Bloomington
	Audio-Visual Center
	Purdue University
	Lafayette

Iowa	Missouri
Visual Instruction Service	Audio-Visual Education Dept.
Iowa State University	Division of Continuing Ed.
Ames	University of Missouri
Kansas	Columbia
Bureau of Visual Instruction	Montana
University of Kansas	Office of Information
Lawrence	Montana State College
Extension Information Dept.	Bozeman
Kansas State University	Montana State Film Library
Manhattan	Sam Mitchell Building
Kentucky	Helena
Dept. of A-V Services	Nebraska
University of Kentucky	Bureau of A-V Instruction
Lexington 29	University of Nebraska
Louisiana	Lincoln
Extension Service	Nevada
Louisiana State University	A-V Communications Center
Baton Rouge 3	University of Nevada
Maine	Reno
Audio-Visual Service	New Hampshire
University of Maine	Audio-Visual Center
Orono	University of New Hampshire
Maryland	Durham
Extension Service	New Jersey
University of Maryland	New Jersey State Museum
College Park	State House Annex
Massachusetts	Trenton 7
Audio-Visual Center	New Mexico
University of Massachusetts	N. M. State Library Comm.
Amherst	P.O. Box 1629
Michigan	Santa Fe
A-V Education Center	Extension Service
University of Michigan	New Mexico State University
Ann Arbor	University Park
Audio Visual Center	New York
Michigan State University	Film Library
East Lansing	N.Y. State Dept. of Commerce
Minnesota	Albany 7
Extension Service	Extension Service
Institute of Agriculture	College of Agriculture
University of Minnesota	Cornell University
St. Paul 1	Ithaca
Mississippi	North Carolina
Extension Service	Bureau of Visual Instruction
Mississippi State University	University of North Carolina
State College	Chapel Hill

Extension Service	South Dakota State Univ.
North Carolina State College	Brookings
State College Station	
Raleigh	
North Dakota	Tennessee
Extension Service	Division of Univ. Extension
North Dakota State Univ.	University of Tennessee
Fargo	Knoxville 16
Ohio	Texas
Extension Service	Visual Instruction Bureau
College of Agriculture	University of Texas
Ohio State University	Austin
Columbus 10	Extension Service
Dept. of A-V Education	Texas A. & M. University
State Dept. of Education	College Station
Columbus 15	
Oklahoma	Utah
Audio-Visual Education Dept.	Audio-Visual Division
University of Oklahoma	Utah State University
Norman	Logan
Division of Agriculture	Vermont
Oklahoma State University	Vermont State Film Library
Stillwater	Audio-Visual Services Dept.
Oregon	University of Vermont
Office of A-V Instruction	Burlington
Oregon State University	
Corvallis	Virginia
Pennsylvania	Extension Service
Ag. Extension Service	Virginia Polytechnic Institute
Pennsylvania State University	Blacksburg 12
University Park	Bureau of Teaching Materials
Puerto Rico	Board of Education
Extension Service	Richmond 16
University of Puerto Rico	
Rio Piedras	Washington
Rhode Island	Office of Visual Education
Audio-Visual Service	Central Washington College
University of Rhode Island	Ellensburg
Kingston	Audio-Visual Center
South Carolina	Washington State University
Extension Service	Pullman
Clemson University	
Clemson	West Virginia
Audio-Visual Aids Bureau	Audio-Visual Aids Dept.
University of South Carolina	The Library
Columbus 19	West Virginia University
South Dakota	Morgantown
Extension Service	
College of Agriculture	Wisconsin
	Bureau of Visual Instruction
	University of Wisconsin
	Madison 6
	Wyoming
	Audio-Visual Department
	University of Wyoming
	Laramie

## INDEX

### A

- A is for Atom — 25, 51
- A Mile to El Dorado — 18
- A Tree is Born — 5
- A Way of Life — 5
- Adelie Penguins of the Antarctic — 6
- Air Pollution —
  - Everyone's Business — 25
- Air Pollution Films
  - (3 films) — 42
- American Frontier — 18

### B

- Beach Hike — 44
- Bell Solar Battery, The — 26
- Between the Tides — 33
- Beyond Tomorrow — 6
- Big Risk — 19
- Black Widow Spider — 7

### C

- Camping, a Key to Conservation — 46
- Changing City, The — 26
- Changing Forest, The — 7
- Chemical Biocides — 39
- Chemical Conquest — 39
- City and the Future, The — 26
- Coal and Water — 42
- Color, Texture and Finish — 19
- Community, The — 33
- Conservation Filmstrips — 61
- Conservation for Beginners Series
  - (6 filmstrips) — 58
- Conservation for Today's America Series (7 filmstrips) — 59
- Conservation is Everyone's Business Series (3 filmstrips) — 60
- Conservation of Our Resources, The (9 filmstrips) — 68
- Conservation of Plants and Animals — 60
- Conservation Vistas — 46
- Conserving Our Natural Resources (7 filmstrips) — 62
- Conserving Our Resources Series (8 filmstrips) — 63

- Conserving Our Soil and Water — 64
- Conserving Our Soil Today — 55
- Conserving Our Water Resources Today — 55
- Crises on the Kanawha — 43

### E

- Energetically Yours — 27
- Eruption of Kilauea — 20
- Everyman's Empire — 45, 56
- Exploring the Farmland — 8

### F

- Films for Community Action — 48
- Fish Out of Water — 8
- Food or Famine — 51
- Forest Community Series
  - (6 filmstrips) — 69
- Forgotten Ore of Eagle Mountain — 20
- Futures in Steel — 21

### G

- George Washington's River — 43
- Grass Blade Jungle — 34
- Green City, The — 28

### H

- How our Town Saved the River — 44

### I

- In the Beginning — 8
- Interdependence of Living Things Series (6 filmstrips) — 64

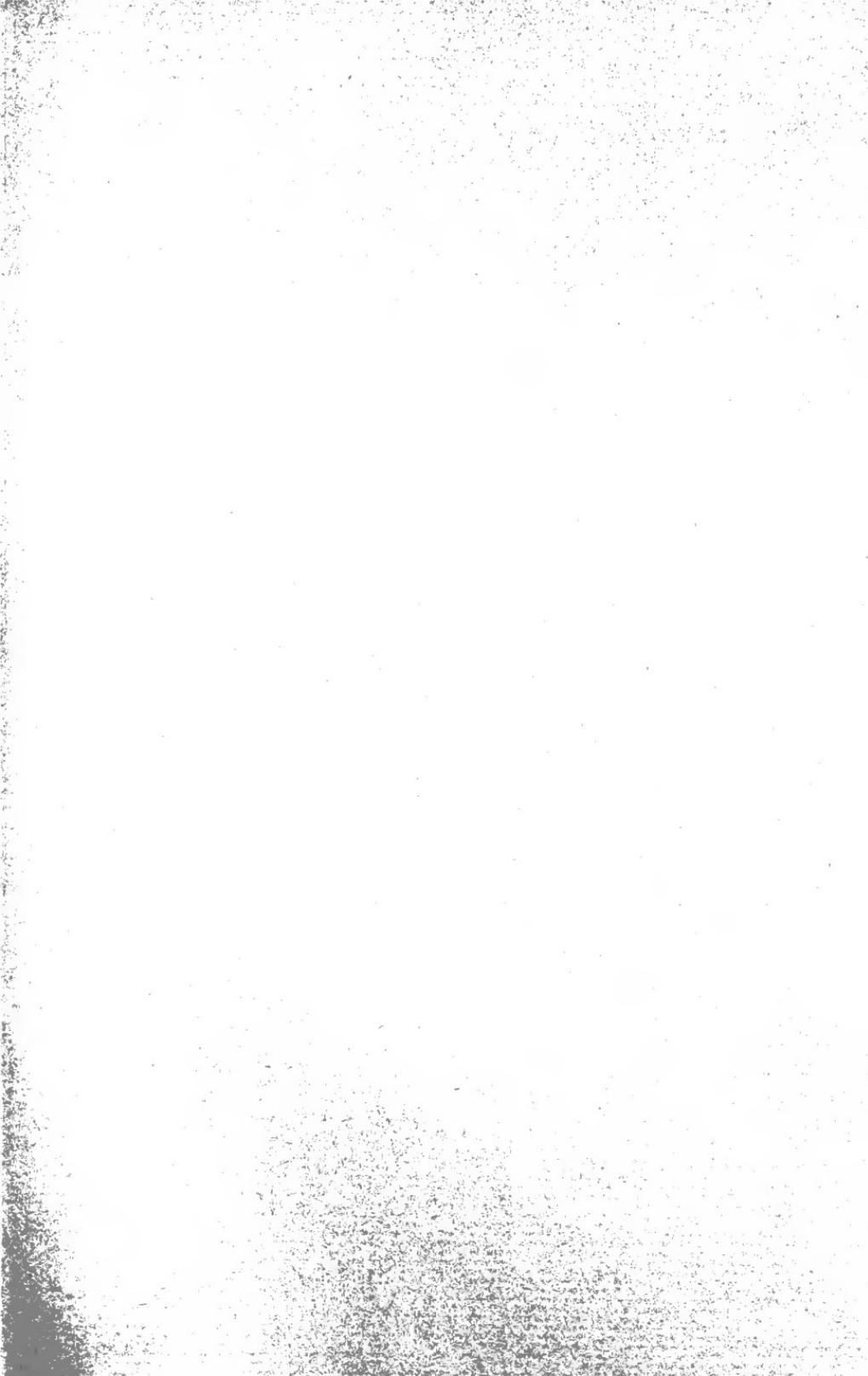
### L

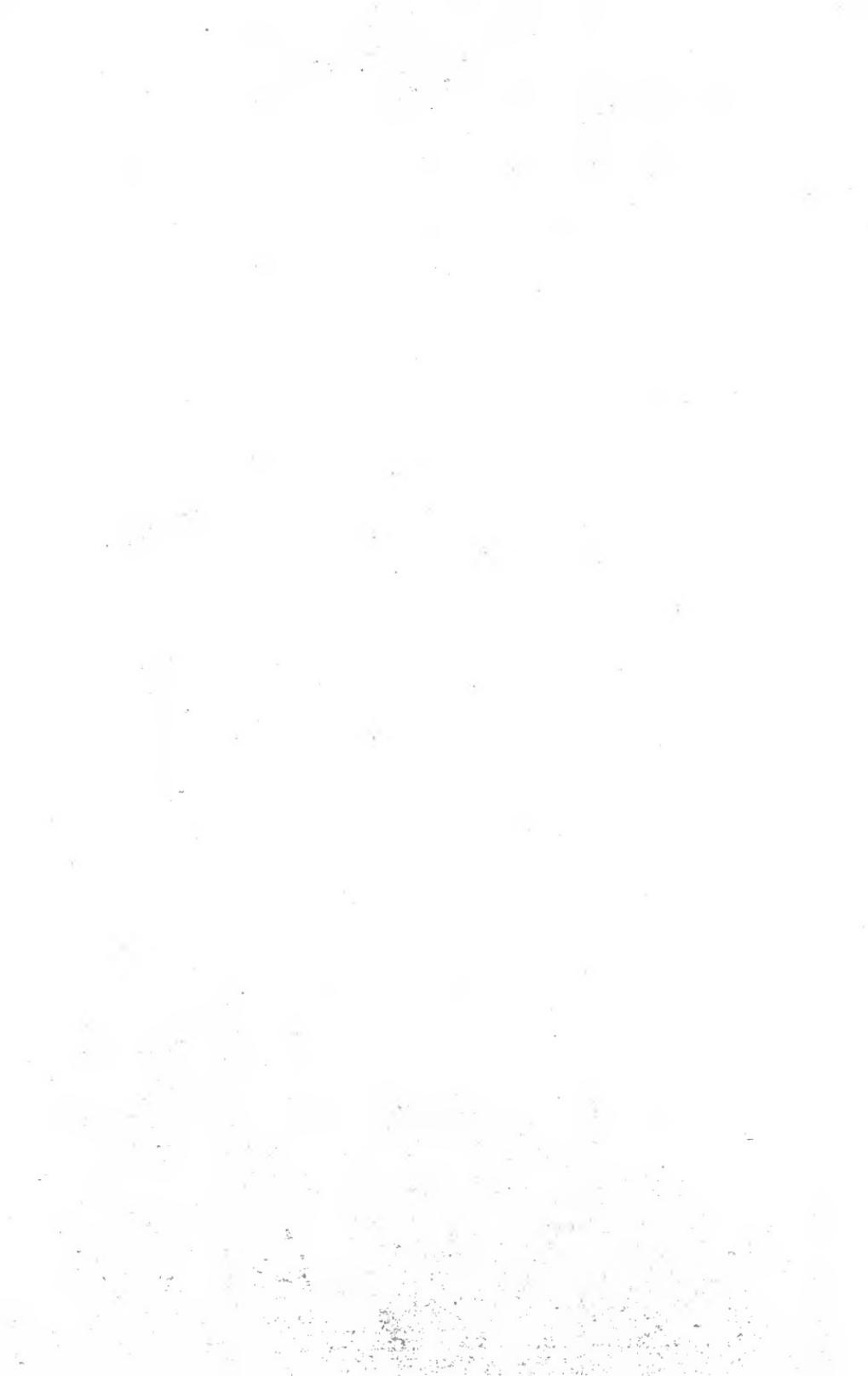
- Land of White Alice — 28
- Life in the Woodlot — 34
- Living Forest Series, The — 9, 10
  - Part 1: The Forest Grows — 9
  - Part 2: The Forest Produces — 9
  - Part 3: Forest Conservation — 10
- Living Things Series
  - (3 filmstrips) — 65
- Living Water Series, The — 10
  - Part 1: Nature's Plan — 10
  - Part 2: Man's Problem — 10, 56

- M**
- Magic of Sulphur, The — 21
  - Man in the Doorway, The — 22
  - Man of Action — 29
  - Marshland is not Wasteland — 29
  - Marsh Waters, Waste or Wealth — 56
  - Meaning of Conservation, The — 11
  - Modern Mosquito Control — 40
  - My Own Yard to Play In — 30
- N**
- Natural Enemies of Insect Pests — 40
- O**
- Our Changing Environment — 30, 52
  - Our Natural Resources Series  
(6 filmstrips) — 66
  - Outdoor Education in Cook  
County — 47
  - Out of the North — 11
- P**
- Packaged Power — 22
  - Persistent Seed, The — 52
  - Petrified River, The — 23
  - Plant and Animal Communities:  
The Physical Environment — 35
  - Poisons, Pests and People — 41
  - Polar Ecology — 35
  - Pond and the City, The — 31
  - Population Ecology — 36, 53
- Q**
- Quetico — 45
- R**
- Rainbow Valley — 12
  - Red 14 — 57
- S**
- Revolution of the Land, The — 31
  - Rival World, The — 41
  - Road of Iron — 23
  - Rubber from Oil — 24
- T**
- Then It Happened — 57
  - Tomorrow's Trees — 12
  - Treasures of the Earth — 24
  - Tree, The — 13
  - Tropical Rain Forest, The — 37
- W**
- Water — 13, 53
  - Water, Pattern of Life — 14
  - Watershed Wildfire — 14
  - Web of Life Series — 15, 54
  - We Share This Land — 14
  - What is Ecology — 37, 54
  - Wilderness Alps of Stehekin — 46
  - Wildlife at Home — 16
  - Window, The — 47
  - World at Your Feet — 16
  - World in a Marsh — 38
  - World That Nature Forgot, The — 32
  - Worlds of Dr. Vishniac, The — 17
- Y**
- Yours is the Land — 17, 55, 57









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